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DEPARTMENT OF THE ARMY

Procurement Programs



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Committee Staff Procurement Backup Book FY 1998 / FY 1999 Budget Estimate

MISSILE PROCUREMENT, ARMY

February 1997

19970304 008

APPROPRIATION

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MISSILE PROCUREMENT, ARMY

APPROPRIATION LANGUAGE

equipment, appliances, and machine tools in public and private plants; reserve plant and Government and contractor-owned equipment layaway; and other expenses necessary for the foregoing purposes; equipment and training devices; expansion of public and private plants, including the land necessary including ordnance, ground handling equipment, spare parts, and accessories therefor; specialized For construction, procurement, production, modification, and modernization of missiles, equipment, therefor, for the foregoing purposes, and such lands and interests therein, may be acquired, and \$1,178,151,000 in fiscal year 1998 to remain available for obligation until September 30, 2000. construction prosecuted thereon prior to approval of title; and procurement and installation of

COMPARISON OF FY 1997 PROGRAM REQUIREMENTS AS REFLECTED IN THE FY 1997 BUDGET REQUEST WITH THE FY 1997 PROGRAM REQUIREMENTS AS SHOWN IN THE FY 1998/99 BUDGET REQUEST (In Millions of Dollars)

Appropriation	FY 1997	FY 1997	
Missile Procurement, Army	Requirements per	Requirements per	Increase
	FY1997	FY1998/1999	o
	Budget	Budget	(Decrease)
Activity 2 - Other Missiles	704	944	240
Activity 3 - Modification of Missiles	38	70	32
Activity 4 - Spares and Repair Parts	12	12	0
Activity 5 - Support Equipment and Facilities	12	12	0
Reimbursable Program	30	30	0
	962	1,068	272
EXPLANATION BY ACTIVITY			

MLRS Launcher (+67), ATACMS (+69), distribution of reductions for P.L. 104-208, SEC 8037 (-3), P.L. 104-208, SEC 8138 (-1). Activity 2 - Other Missiles - The net increase resulted from congressional adjustments to Javelin (+34), Avenger (+59), MLRS Rocket (+17), Activity 3 - Modification of Missiles - The net increase resulted from congressional adjustment to Patriot Mod (+12), Stinger Mod (+20), distribution of reductions for P.L.104-208, Sections 8138 and 8037 (-0.075).

Activity 5 - Support Equipment and Facilities - A proportionate reduction was made for Sections 8138 and 8037 of P.L.104-208 (-0.011). Activity 4 - Spares and Repair Parts - A proportionate reduction was made for Sections 8138 and 8037 of P.L. 104-208 (-0.011).

COMPARISON OF FY 1997 PROGRAM REQUIREMENTS AS REFLECTED IN THE FY 1998/99 BUDGET REQUEST WITH THE FY 1998 PROGRAM REQUIREMENTS AS SHOWN IN THE FY 1998/1999 BUDGET REQUEST (In Millions of Dollars)

Appropriation	FY 1997	FY 1998	
Missile Procurement, Army	Requirements	Requirements	Increase
	FY1998/99	FY1998/1999	or
	Budget	Budget	(Decrease)
Activity 2 - Other Missiles	944	1,062	118
Activity 3 - Modification of Missiles	70	86	28
Activity 4 - Spares and Repair Parts	12	11	(1)
Activity 5 - Support Equipment and Facilities	12	7	(5)
Reimbursable Program	30	180	150
	1,068	1,358	290

EXPLANATION BY ACTIVITY

Activity 2 - Other Missiles - The net increase results from: BMDO funding transfer for PAC 3 (+349) and increased ATACMS Block IA buy (+23); completion of quantity buys for Avenger (-78), Hellfire II (-93), and MLRS Rocket (-39) along with funding decrease to Javelin (-18), TOW (-12) and other program adjustments (-14).

Activity 3 - Modification of Missiles - The net increase results from: start of ITAS buy (+63), funding decrease in Stinger (-24),

Patriot (-3), MLRS (-4) Mods, and no funding for Dragon Mod (-3).

Activity 4 - Spares and Repair Parts - The net decrease results from minor funding adjustments to Initial Spares and Repair Parts (-1).

Activity 5 - Support Equipment and Facilities - The net decrease results from decrease to Air Defense Targets (-5). Reimbursable Program - The net increase results from projected increase in Federal (+78) and FMS (+54) sales.

COMPARISON OF FY 1998 PROGRAM REQUIREMENTS AS REFLECTED IN THE FY 1998/99 BUDGET REQUEST WITH THE FY 1999 PROGRAM REQUIREMENTS AS SHOWN IN THE FY 1998/1999 BUDGET REQUEST (In Millions of Dollars)

Appropriation	FY 1998	FY 1999	
Missile Procurement, Army	Requirements	Requirements	Increase
	F 1 1996/99 Budget	F 1 1996/1999 Budget	or (Decrease)
Activity 2 - Other Missiles	1,062	1,417	355
Activity 3 - Modification of Missiles	86	96	(2)
Activity 4 - Spares and Repair Parts	F	21	10
Activity 5 - Support Equipment and Facilities	7	7	0
Reimbursable Program	180	164	(16)
	1,358	1,705	347

EXPLANATION BY ACTIVITY

Activity 2 - Other Missiles - The net increase results from: increased quantity buys for Patriot (+21), Longbow Hellfire (+64), Javelin (+184), and BAT (+15); start quantity buy for ER-MLRS (+16), ATACMS Block II (+61), and other adjustments (-6).

Activity 3 - Modification of Missiles - The net decrease results from adjustments to modification programs (-2).

Activity 4 - Spares and Repair Parts - The net increase results from an increase in Spares and Repair Parts for Javelin (+4), and MLRS Launcher (+6). Reimbursable Program - The net decrease results from: increase in sale of Javelin to USMC (+42), no anticipated sale of MLRS Rocket/Launcher (-54) and minor adjustments associated with the sale of several other items (-4).

Index for MISSILE PROCUREMENT, ARMY

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l m	HELLFIRE SYS SUMMARY	C70000	21338139.98P	17
4	JAVELIN (AAWS-M) SYSTEM SUMMARY	CC0007	20648139.98P	31
2 ،	JAVELIN (AAWS-M) ADV PROC	CC0007	20649139.98P	39
ဖ	TOW 2 SYSTEM SUMMARY	C59300	22104139.98P	41
7	MLRS ROCKET	C65400	25900139.98P	46
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50	ITEMS LESS THAN \$2.0M (MISSILES)	CL2000	23902147.98P	172
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DEPARTMENT OF THE ARMY FY 98/99 PROCUREMENT PROGRAM

Appropriation: **MISSILES**

MISSILES**
**OTHER
'n
Activity:

		r	(DOLS)				(THOUSANDS OF DOLLARS)	OF DOLLA	RS)		
LINE	ITEM NOMENCIATIBE	9	FY 98 UNIT	Ĺ	FY 96		FY 97	<u>.</u>	FY 98		FY 99
į)	COST	QTY	COST	αTY	COST	QTY	COST	QTY	COST
(1)	(2)	(3)	(4)	(2)	(9)	(2)	(8)	(6)	(10)	(11)	(12)
	SURFACE-TO-AIR MISSILE SYSTEM										
-	PATRIOT SYSTEM SUMMARY (MYP) (C49100)	<	6,713,634		4,924			52	349,109	89	369,885
8	AVENGER SYSTEM SUMMARY (C14900)				30,532	3	71,913				
	SUB-ACTIVITY TOTAL				35,456		71,913		349,109		369,885
	AIR-TO-SURFACE MISSILE SYSTEM										
ღ	HELLFIRE SYS SUMMARY (C70000)	∢	190,912	1,102	235,954	2,805	357,254	1,465	279,687	2,000	345,433
	SUB-ACTIVITY TOTAL				235,954		357,254		279,687		345,433
	ANTI-TANK/ASSAULT MISSILE SYSTEM										
4	JAVELIN (AAWS-M) SYSTEM SUMMARY (CC0007)		132,511	1,010	200,858	1,020	161,281	1,080	143,112	3,316	326,623
ഹ	JAVELIN (AAWS-M) SYSTEM SUMMARY (CC0007) ADVANCE PROCUREMENT (CY)						34,000				
ø	TOW 2 SYSTEM SUMMARY (C59300)	∢			9,686		13,571		1,326		
7	MLRS ROCKET (C65400)			1,326	44,607	1,674	41,404		2,863	534	18,955
80	MLRS LAUNCHER SYSTEMS (C66400)		3,539,620		81,093		103,703	29	102,649	32	92,457
6	ARMY TACTICAL MSL SYS (ATACMS) -SYS SUM	۷	748,326	120	121,303	97	91,815	153	114,494	160	120,400
	(C98510) LESS: ADVANCE PROCUREMENT (PY)								-16,680		-17,440
					121,303		91,815		97,814		102,960

DEPARTMENT OF THE ARMY FY 98/99 PROCUREMENT PROGRAM

Appropriation: **MISSILES**

Activity: 2. **OTHER MISSILES**

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DEPARTMENT OF THE ARMY FY 98/99 PROCUREMENT PROGRAM

Appropriation: **MISSILES**

Activity: 3. **MODIFICATIONS**

1D UNIT COST QTY	COST COST COST COST COST COST COST COST
COST QTY COS	COST QTV COST QTV COST (4) (5) (6) (7) (8) (10) (4) (5) (6) (7) (8) (10) (6) (7) (8) (9) (10) (6) (7) (8) (10) (10) (7) (8) (8) (10) (10) (8) (11) (30) (30) (30) (30) (8) (11) (30) (30) (41) (30) (41)
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23,442 20,825 36,860 12,411 16 62,755 3,178 6,410 2,188 69,906 98,179	36,860 3,178 6,410 69,906 69,906
23,442 20,825 36,860 12,411 16 62,755 6,410 2,188 69,906 98,179	36,860 3,178 6,410 69,906 69,906
36,860 12,411 16 62,755 3,178 6,410 2,188 69,906 98,179	3,178 6,410 69,906 69,906
3,178 6,410 69,906 69,906 98,179	3,178 6,410 69,906 69,906
6,410 2,188 69,906 98,179	69,906 69,906
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69,906	906'69

EXHIBIT P-1 February 1997

DEPARTMENT OF THE ARMY FY 98/99 PROCUREMENT PROGRAM

Appropriation: **MISSILES**

Activity: 4. **SPARES AND REPAIR PARTS**

	FY 99	COST	(12)		21,385	21,385	21,385	
		QTY	(11)					
4RS)	FY 98	COST	(10)		11,381	11,381	11,381	
OF DOLL		QTY	(6)					
(THOUSANDS OF DOLLARS)	FY 97	COST	(8)		12,078	12,078	12,078	
		QTY	(2)					
	FY 96	COST	(9)		11,500	11,500	11,500	
		QTY	(2)					
(DOLS)	FY 98 UNIT	COST	(4)					
	٥		(3)					
	ITEM NOMENCLATURE		(2)	**SPARES AND REPAIR PARTS**	SPARES AND REPAIR PARTS (CA0250)	SUB-ACTIVITY TOTAL	ACTIVITY TOTAL	
	LINE NO.		(1)		18			

DEPARTMENT OF THE ARMY FY 98/99 PROCUREMENT PROGRAM

EXHIBIT P-1 February 1997

Appropriation: **MISSILES**

Activity: 5. SUPPORT EQUIPMENT AND FACILITIES**

			(DOLS)				(THOUSANDS OF DOLLARS)	OF DOLLA	RS)		
ENI C	ITEM NOMENCIATURE	٥	FY 98 UNIT		FY 96		FY 97	L.	FY 98	IL.	FY 99
į		!	COST	ΔΤΥ	COST	QTY	COST	QTY	COST	QTY	COST
(1)	(2)	(3)	(4)	(2)	(9)	(7)	(8)	(6)	(10)	(11)	(12)
	SUPPORT EQUIPMENT AND FACILITIES									***	
19	AIR DEFENSE TARGETS (C93000)				6,595		6,195		866		966
50	ITEMS LESS THAN \$2.0M (MISSILES) (CL2000)				971		991		954		941
24	MISSILE DEMILITARIZATION (HL2000)				1,643		1,532		1,507		1,496
22	PRODUCTION BASE SUPPORT (CA0100)				2,848		3,466		3,364		3,325
	SUB-ACTIVITY TOTAL				12,057		12,184		6,823		6,758
	ACTIVITY TOTAL				12,057		12,184		6,823		6,758
	APPROPRIATION TOTAL				839,455		1,038,109	•	1,178,151		1,541,375

PROCUREMENT PROGRAM-INSTALLATION SUMMARY

(TOA, Dollars in Millions)

System/Modification	Prior Yrs	FY97	FY98	FY99	FY00	FY01	FY02	FY03	Total
PATRIOT MODS	10.4	1.2	1.6	1.4	1.8	2.2	1.8	1.4	21.8
TOW MODS	16.9	0.0	0.1	2.1	0.2	0.3	0.3	4.1	21.3
MLRS MODS	204.2	6.4	2.2	2.2	2.3	2.6	2.6	2.5	225
TOTAL FOR MISSILE MOD	231.5	7.6	3.9	5.7	4.3	5.1	4.7	5.3	268.1

P-40H	Sheel
Exhibit	Justification
	item
	Budget

							DATE				
	ā	JDGET ITEN	BUDGET ITEM JUSTIFICATION SHEET	ATION SHE	h			February 1997	y 1997		
APPROPRIATION / BUDGET ACTIVITY	IVITY				P-1 ITEM NOMENCLATURE	LATURE					
	MISSILE PROCUR	MISSILE PROCUREMENT /Other Missiles	lles				PAT	PATRIOT SYSTEM SUMMARY (MYP) (C49100)	MARY (MYP) (C49	100)	
	Prior Years	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete Total Program	Total Program
OUANTITY	6475			52	89	180	212	220	240	228	7675
COST (in millions)	9629.1	4.9	0.0	349.1	6.698	459.2	445.4	433.1	396.8		12087.5
Initial Spares (in millions)	344.3										344.3
Total (in millions)	9973.4	4.9		349.1	369.9	459.2	445.4	433.1	396.8		12431.8
Unit Cost (in millions)	1.5			6.7	5.4	2.6	2.1	2.0	1.7		1.6
	10.01	1	4	in halfalant	and of the same	adaid a deire	ingle obot to	Il probability	of oldonoo	nemica:	0

and ballistic missiles likely to be encountered by US Forces during the 90's and beyond. The system utilizes a multifunction Phased Array Radar, a digital presence of Electronic Countermeasures (ECM) and able to conduct multiple simultaneous engagements against high performance air breathing targets logistics costs associated with the replaced systems while providing improved high and medium altitude air defense. Deployment is to the field Army and computer controlling system functions, a guidance system combining command and homing (track-via-missile) features, and provides the operator the ability to control operations. PATRIOT totally replaced Nike Hercules and partially replaced HAWK. It has the advantage of reducing manpower and DESCRIPTION: PATRIOT is an advanced Surface-to-Air guided missile system with a high single shot kill probability capable of operation in the he system is integrated with the U.S. Air Force in the overall air defense of the theater of operations

command, control, and computer capability, will increase PATRIOT's effectivity, survivability, flexibility of defense design, footprint and detection of smaller The PATRIOT Advanced Capability (PAC)-3 program is a result of a series of integrated, phased system improvements in combination with the PAC-3 missile which utilizes hit-to-kill technology. Modification to the system, which includes radar enhancements, communication upgrades and increased low radar cross section targets.

JUSTIFICATION: FY98-FY03 includes costs for PAC-3 missile and modifications to support equipment.

Cooperative Agreements:

U.S. Owned/FRG Manned - The Memorandum of Understanding for enhancing air defense for Central Europe dated 6 Dec 84, providing U.S. support to US owned/FRG Manned PATRIOT Fire Units.

NATO Maintenance and Supply Agency (NAMSA) - DOD directed requirement to support the European and NATO deployed units (International agreement Germany, the Netherlands and the U.S. for common logistics support of PATRIOT).

Missiles Cost Analysis		A. APPN / BUDGET ACTIVITY TITLE/NO MISSILE PROCUREMENT / 2	PROCURE	NY BUDGE I ACTIVITY TILLENO MISSILE PROCUREMENT / 2 / Other Missiles	er Missiles	B. WEAPON	N PATRIOT		-	c. MANUFACTURER NAME Raytheon, Andover, MA	₽	D. DATE Febru	February 1997
Missiles	QI		FY 96			FY 97			FY 98			FY 99	
Cost Elements	CD	TotalCost	. Oty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
CONTRACTOR OF CO		000\$	Each	\$000	\$000	Each	\$000	000\$	Each	\$000	\$000	Each	\$000
SubTotal Missile Hardware								114604	25	2204	132385	89	1947
Non-Recurring Costs													
Total Flyaway			,					114604			132385		
Ground Support Equipment Radar Phase III CDI Phase III			·					38000			37000 13800		
Command and Launch System Modification Spares Total Ground Support Equipment								21200 39300 135200			39800 32200 145500		
SubTotal C&L Hardware								249804			277885		
Support Cost Contractor Engineering Government Engineering SEPM Integrated Logistics Support NAMA DMPE Fielding Sub Total Support Cost		2200 2724 4924						29300 21905 20655 11950 5317 5000 5178			27200 20500 19300 11200 4300 4600 4900		
Gross P-1 End Cost Less: Prior Year Adv Proc Net P-1 Full Funding Cost PLUS P-1 CY Adv. Proc. Other Non P-1 Costs Initial Spares MODS MODS		4924 4924 6767 3385			23442 6975			349109 349109 20825 2732			369885 369885 15575 3622		
TOTAL		15076			30417			372666			389082		

BUDGET	PROCUREMENT	T HISTORY AND	PLANNIN	BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)					DATE Fet	February 1997	76
B. APPROPRIATION / BUDGET ACTIVITY						C. P-1 ITEM N	C. P-1 ITEM NOMENCLATURE	RE			
MI	MISSILE PROCUREMENT / 2 / Other	/2/Other Missiles						PATRIOT		١	
LINE ITEM / FISCAL YEAR	CONTRACT	CONTRACTOR AND LOCATION	CONTRACT METHOD AND TYPE	CONTRACTED BY	AWARD	DATE OF FIRST DELIVERY	QTY	UNIT COST	SPECS AVAIL NOW	SPEC IF REV REO'D	IF YES W/A
PRODUCTION CONTRACT PATRIOT MSL			(2)								
	Raytheon Co	Andover, MA Andover, MA	SS/FPM-5(1)* SS/FPM-5(2)*	MICOM	Mar-87 Nov-87	Jan-89 Jan-90	700	502000			
FY89	Raytheon Co	Andover, MA	SS/FPM-5(3)*	MICOM	Nov-88	Sep-90	815	475000	YES	9 9	
FY90 FY91	Raytheon Co	Andover, MA	SS/FPM-5(4)	MICOM	Nov-90	Jul-92	1100	522000	YES	2 2	
FY91 FY92	Raytheon Co	Andover, MA Andover, MA	SS/FPM-5(5)* SS/FPM-5(5)*	MICOM	May-92 May-92	Oct-94 Oct-94	83	717000	YES	<u>9</u> 9	
PATRIOT GSE MULTIYEAR											
	Raytheon Co Raytheon Co	Andover, MA Andover, MA	SS/FPM-3(1)* SS/FPM-3(2)*	MICOM	Mar-87 Nov-87	Jan-89 Jan-90	5 50	Y Y		9	
FY89 FY90 FY91	Raytheon Co Raytheon Co Raytheon Co	Andover, MA Andover, MA Andover, MA	SS/FPM-3(3)* SS/FPM-4(4)* SS/FPM-5(5)*	MICOM	Mar-90 Nov-90	Jan-91 Feb-92 Jan-93	0 0 0	4 4 4 2 2 2	YES YES	2 2 2	
PAC-3 MISSILE FY 98 FY 99	LMVS	Dallas, TX Dallas, TX	SS/CPIF SS/CPIF	MICOM	Nov-97 Nov-98	Apr-99 Apr-00	52 68	2204000	N/A N/A		
	· · · · · · · · · · · · · · · · · · ·										

REMARKS:

(1) Raytheon Company contract includes Martin Marietta (Orlando, FL) as subcontractor for missiles.
(2) Sole Source Procurement is necessary because only the development contractors possess the technical expertise necessary to perform the effort without duplication of time, funds and effort already expended.
(3) Fire Unit cost contains one Radar, one Engagement Control Station, and eight Launchers. Missile unit cost does not contain warhead cost.
* Contract contains economic price adjustment clause. No cost has been recouped to date.

							P-1 IT	P-1 ITEM NOMENCLATURE	MENCL	ATUR	щ				İ						_	DATE			l			l	
EV 98 / 99 BUDGET PRODUCTION SCHEDULE	3		SCE							ſ		ļ	_	PATRIOT	٦		ľ				┪			T.	February 1997	ry 199	2		
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	BND	GET ITEM JUS	BUDGET ITEM JUSTIFICATION SHEET	EET			February 1997	
APPROPRIATION / BUDGET ACTIVITY	IIVITY			P-1 ITEM NOMENCLATURE	ш			
	MISSILE PROCUREMENT /Other Missiles	IT /Other Missiles				AVENGER SYSTEM	AVENGER SYSTEM SUMMARY (C14900)	
	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
QUANTITY	0	0	0	0	0	0	0	0
COST (in millions)	30.5	71.9	0.0	0.0	0.0	0.0	0.0	0.0

Description:

Standard Vehicle Mounted Launcher (SVML). The SVML includes seeker coolant bottles and related hardware and it supports and launches multiple STINGER missiles. The SVML provides output signals that can be used to display to the gunner exactly where the STINGER is pointed. The driven purpose Wheeled Vehicle (HMMWV). It is operated by a two man crew for defense against helicopters and fixed wing aircraft at low altitude, day or The AVENGER System is a lightweight, highly mobile/transportable surface-to-air missile/gun weapon system mounted on a High Mobility Multioperates with standard unmodified Basic STINGER, STINGER-POST or STINGER-RMP missile rounds. AVENGER fills the Line-of-Sight Rear sight reticule capability aids the gunner in severe background clutter and Electromagnetic Counter Measure (ECM) environments. The system night, and in clear or adverse weather. The system incorporates an operator's position with controls, displays, fire control electronics, and the (LOS-R) role in Forward Area Air Defense Systems (FAADS).

Marine Corps and other services could take advantage of the Army's contract and favorable pricing terms. FY 97 procures the remainder of the multi-A five year multiyear procurement (MYP) contract for AVENGER began in FY91. In 1994, Congress agreed to a provision in the FY95 budget that would grant a one year extension, at no additional cost, for extending the delivery schedule of AVENGER multiyear procurement authority so the year procurement (93 fire units) for the Army National Guard.

Justification:

AVENGER constitutes the Line-Of-Sight Rear (LOS-R) component of the Forward Area Air Defense System (FAADS), and it is the first FAADS element fielded

Missiles Cost Analysis		A. APPN / BUDGET ACTIVITY TITLE/NO MISSILE PROCUREMENT / 2	T ACTIVITY PROCURE	N BUDGET ACTIVITY TITLENO MISSILE PROCUREMENT / 2 / Other Missiles	er Missiles	B. WEAPON AVENGE	I ER SYSTEM S	WEAPON AVENGER SYSTEM SUMMARY (C14900)		C. MANUFACTURER NAME Various	CTURER NAME Various	D. DATE Febi	rte February 1997
Missilas	₽		FY 96			FY 97			FY 98			FY 99	
Cost Elements	8	TotalCost	Oty	UnitCost	TotalCost	Qty.	UnitCost	TotalCost	Oty	UnitCost	TotalCost	Qty	UnitCost
		\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000
HARDWARE Drive Hardware Turrent Assembly Army Unapplied EOQ EOQ Diverted to USMC					35208	93	379						
SubTotal Missile Hardware					35208								
PROCUREMENT SUPPORT Contractor Engineering Government Engineering Project Management Administration		2726 2020 420			4947 4716 464								
TOTAL PROCUREMENT		5166			45335								
Command & Launch Hardware Std Veh Mtd Launcher (SMVL) Army Other GFE- Army only					15345	93	165						
Other (HMMWV)					4669	66	50						
SubTotal C&L Hardware					20014								
Support Cost Peculiar Support Equipment Institutional Conduct of Fire Trainers(ICOFT) Force On Force Trainers (FOFT)		2115 8190 6785			5500 1003								
Fielding Interim Contractor Spt (Machinegun) Other (FDT)		6261			. 61								
SubTotal Support Cost		25366			6564								
Gross P-1 End Cost		30532			71913								
Net P-1 Full Funding Cost		30532			71913								
PLUS P-1 CY Adv. Proc. Other Non P-1 Costs Initial Spares MODS		700											
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TOTAL		31519			71913								

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B APPROPRIATION / BUDGET ACTIVITY					C. P-1 ITEM NOMENCLATURE	DMENCLATUR	# #		and fund	
	MISSILE PROCUREMENT / 2 / Other Missiles					AVENGER	AVENGER SYSTEM SUMMARY (C14900)	3Y (C1490	(
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	Boeing Aerospace Huntsville, AL	SSM-7/FP MICOM	MICOM	Dec-96	Mar-97	.63	379	yes	OL COLOR	
пемавкs: * No quantity shown in FYDP, howe	* No quantity shown in FYDP, however, Army plans to procure 93 fire units.			Λ			0			

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FY 98 / 99 BUDGET PRODUCTION SCHEDULE	1	CHON	SCHE		ACCED	ī vā	ı			Ĭ	Elecal Voor 08	SER S	0	200	2	2	(000				ű	80	Fiscal Veer 99	00	repruary 1997		١	-	T.
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Exhibit P-43 Sim
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								Date	
	Simu	Simulator and Training Device Justification	raining Dev	ice Justifica	ation			Februs	February 1997
Appropriation / P-1 Line Item			Weapon System (if applicable)	icable)		Equipment Nomenclature	0		PE
MISSILE PROCU	MISSILE PROCUREMENT/AVENGER TRAINING DEVICES	AINING DEVICES		AVENGER			TRAINING DEVICES		C15200
Fin Plan	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	Total
Quantity									
(Each)									
Proc	27626	6503							34129
(\$000)									
RDT&E									
(\$000)									
O&S									
(\$000)									

TRAINING SYSTEM DESCRIPTION:

Description:

and building-up proficiency in the collective environment is hampered, because there are no sustainment training devices in the field specifically The operators and maintainers leave the initial entry training courses with less than adequate training. The further development of critical skills Operator and Redstone Arsenal-Maintainers) depend on actual AVENGER fire units to conduct training. This method of training was in place The training devices being procured and supported for the AVENGER Air Defense Weapon System are essential to establish adequate and AVENGER fire units requires a higher instructor-to-student ratio, limits the depth of training, and causes higher operating and support costs. programs are seriously deficient in terms of training tasks and the cost to operate/sustain. Both operator and maintainer courses (Ft. Blisscost effective initial entry and sustainment training programs for the AVENGER operators and maintainers. The current initial entry training because there were no development funds for training devices in the baseline Non-Developmental Item (NDI) program. The use of actual designed for the AVENGER operators and maintainers.

Justification:

This training device program will put in place Institutional Conduct of Fire Trainers (ICOFT) at Ft. Bliss, Texas for operator and leadership training. The Force-On-Force Trainers (FOFT) will support the operator in a field environment for collective training.

NOTE: Training device funding in FY 95 for \$8.933 million was not utilized to procure training equipment. These funds were used for production support and total package fielding costs associated with fire units procured in FY 94.

Simulato	Simulator and Training Device Justification (Page 2)	Device J	ustificat	ion (Pa	ge 2)		_			Date	February 1997	26
Appropriation / P-1 Line Item		Weapon System (if applicable)	if applicable)		-	IOC Date	Equipmen	Equipment Nomenclature				PE
MISSILE PROCUREMENT/AVENGER TRAINING DEVICES	INING DEVICES		AVENGER			3088		r	TRAINING DEVICES	DEVICES		C15200
	i	Del	Ready	Avg	Pric	Prior Years	F	FY 1997	Ē	FY 1998	Ā	FY 1999
Training Device By Type	Site	Date	For Tng Date	Student	Qty	Cost	Q	Cost	Qty	Cost	Qty	Cost
					Each	\$000	Each	\$000	Each	\$000	Each	000\$
Captive Flight Trainers (CFT)	Unit Locations	End of FY94	MOM	-	749	12651						
ICOFT	Ft. Bliss, TX	FY97	FY97	588	3	8190	2	5500				
FOFT	NTC/RANGES	FY97	Jan-00		22	6785	8	1003				
					·							
Total						27626		6503				

Simi	ulator	Simulator and Training Device Justification (Page 3)	ng De	vice Just	ificatio	ın (Page 3	€			DATE	February 1997	
Training Device By Type Captive Flight Trainers (CFT)						Weapon System (if applicable) AVENGER	applicable)					
Description / Justification The Captive Flight Trainer is used to train the AVENGER operator to track and acquire targets. It is also used to train proficiency in the field and system check-out.	ner is use	ed to train the	AVEN	GER operate	or to trac	k and acqui	re target	s. It is also	used to	train profici	ency in th	ne field and
	Pri	Prior Years	Ĺ	FY 1997	Ē	FY 1998	FY	FY 1999	Cost T	Cost To Complete	To	Total Cost
Financial Plan	Öţ	Cost	Qty	Cost	Öţ	Cost	Q.	Cost	Q.	Cost	Qţ	Cost
	Each	\$000	Each	\$000	Each	\$000	Each	\$000	Each	\$000	Each	\$000
HARDWARE COSTS Device (hardware) ECOs Nonrecurring GFE Other (Specify)	749										749	12651
SubTotal Hardware Costs SUPPORT COSTS Special SE Integrated Logistics Support Other (Specify)	749	12651									749	12651
SubTotal Support Costs Software/Courseware												
TOTAL COSTS		12651										12651

Sim	ulator a	Simulator and Training Device Justification (Page 3)	ng De	vice Justi	ficatio	n (Page 3	(1			ОАТЕ	February 1997	
Training Device By Type ICOFT					>	Weapon System (if applicable) AVENGER	applicable)					
Description / Justification The ICOFT is a six student training station device needed to more efficiently train initial entry AVENGER operators at Ft. Bliss, TX.	ent traini	ing station de	evice ne	eded to mor	e efficier	ntly train init	ial entry	AVENGER	operato	rs at Ft. Blis	s, TX.	
	Pric	Prior Years	E E	FY 1997	Ę	FY 1998	Œ	FY 1999	Cost	Cost To Complete	T ₀	Total Cost
Financial Plan	Qţ	Cost	Qty	Cost	Offy	Cost	Q ty	Cost	Qty	Cost	Qty	Cost
	Each	\$000	Each	\$000	Each	\$000	Each	\$000	Each	\$000	Each	\$000
HARDWARE COSTS Device (hardware)	3	9608		5412				N			5	13508
ECOs												
Nonrecurring												
GFE												
Program Mgmt		94		88								182
SubTotal Hardware Costs SUPPORT COSTS	က	8190	N	5500							ഹ	13690
Special SE Integrated Logistics Support												
Other (Specify)												
SubTotal Support Costs				-								
Software/Courseware												
TOTAL COSTS		8190		5500								13690

- Simi	lator:	Simulator and Training Device Instification (Page 3)	ישלו המ	rice . Insti	fication	, aned) n	2				Fohrman 1007	
1			20 61	nepo par	Icario	ıı (r aye .	10				February 1991	
Training Device By Type FOFT					<u> </u>	Weapon System (if applicable) AVENGER	applicable)					
Description / Justification												
The AVENGER FOFT will be provided to the train in a simulated combat environment.	ill be pro bat envii	ovided to the ronment.	Nationa	National Training Center (NTC) and instrumented ranges to enable the operators and leaders to	enter (N	TC) and ins	trumente	ed ranges t	o enable	the operato	irs and le	aders to
i	Pric	Prior Years	\ <u>F</u>	FY 1997	FY	FY 1998	Ē	FY 1999	Cost	Cost To Complete	To	Total Cost
Financial Plan	Qty	Cost	Qty	Cost	Q Şţ	Cost	Offy	Cost	Q	Cost	Qţ	Cost
	Each	\$000	Each	\$000	Each	\$000	Each	\$000	Each	\$000	Each	\$000
HARDWARE COSTS Device (hardware)	22	5891	α	606							O.E	COBS
ECOs		800									3	800
Nonrecurring												
GFE												
Program Mgmt		94		94								188
			,									
Sub lotal Hardware Costs	77	6/85	x 0	1003							30	7788
Special SE	7											
Integrated Logistics Support												
Other (Specify)					2							
SubTotal Support Costs												
Software/Courseware												
TOTAL COSTS		6785		1003								1100
		200		2001								00//

							DATE				
	ā	BUDGET ITEM JU	M JUSTIFICA	JSTIFICATION SHEET	- -			February 1997	y 1997		
APPROPRIATION / BUDGET ACTIVITY	IVITY				P-1 ITEM NOMENCLATURE	LATURE					
	MISSILE PROCUF	MISSILE PROCUREMENT /Other Missiles	iles					HELLFIRE SYS SUMMARY (C70000)	MMARY (C70000)		
	Prior Years	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete Total Progran	Total Program
OUANTITY	46590	1102	2805	1465	2000	2030	2020	2020	2060		62092
COST (in millions)	1959.5	236.0	357.3	279.7	345.4	287.3	298.6	249.9	210.7	49.0	4273.3
Initial Spares (in millions)	7.5										7.5
Total (in millions)	1967.0	236.0	357.3	279.7	345.4	287.3	298.6	249.9	210.7	49.0	4280.8
Unit Cost (in millions)	0.04	0.21	0.13	0.19	0.17	0.14	0.15	0.12	0.10		0.07

Description:

will be used by the RAH-66 Comanche, the Army's next generation Helicopter. Production buys are scheduled to support training, testing, fielding, and countermeasures and advanced reactive armors. Using its semi-active laser homing guidance system, Laser HELLFIRE is perfectly suited for precision ability of the AH-64D Longbow Apache Helicopter to operate in adverse weather, battlefield obscurants, and dramatically increases aircraft survivability. strikes at a variety of individual hardpoint targets, while minimizing exposure of the aircraft and supporting troops. Longbow HELLFIRE maximizes the HELLFIRE is an air-to-ground missile system designed to defeat individual targets and minimize exposure of the delivery vehicle to enemy fire. Laser deployment of these aircraft. Beginning in FY 90, the missile was reconfigured with an interim warhead to improve lethality against near term threat HELLFIRE II includes hardening of the laser seeker against countermeasures, further warhead improvements for the long term, replacement of the reactive armor. Development of the HELLFIRE II was completed in 3rd Qtr, FY 93. The first full production contract was awarded on 26 May 93. missile. HELLFIRE is the primary anti-tank armament of the AH-64 Apache, OH-58D Kiowa Warrior, and Special Operations Helicopters and HELLFIRE uses semi-active laser terminal guidance; Longbow HELLFIRE uses a radio frequency guidance section and is a fire-and-forget mechanical fuse with an electronic fuse, and restoration of the original length and weight. HELLFIRE II will defeat all known electro-optical HELLFIRE II and Longbow HELLFIRE are complementary. Both are required on the modern battlefield.

Longbow HELLFIRE began production in FY 95 with Long Lead Items and Initial Production Facilitization.

Missiles Cost Analysis Missile PROCUREMENT / 2 Missiles ID FY 96 Cost Flaments Co TotalCost Oty High Co
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167327 4549 589 6176 3339 128 6287
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	B	JDGET ITEN	BUDGET ITEM JUSTIFICATION SHEET	ATION SHE	H:			Februar	February 1997		
APPROPRIATION / BUDGET ACTIVITY	IVITY				P-1 ITEM NOMENCLATURE	LATURE					
	MISSILE PROCUR	MISSILE PROCUREMENT /Other Missiles	illes				LASE	LASER HELLFIRE MSL (BASIC/IHW/HFII) (C70100)	ASIC/IHW/HFII) (C	70100)	
	Prior Years	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete Total Program	Total Program
QUANTITY	46590	750	1800								49140
COST (in millions)	1889.1	50.7	108.0	15.0	16.9	0.0	0.0	0.0	0.0		2079.7
Initial Spares (in millions)	5.7										5.7
Total (in millions)	1894.8	50.7	108.0	15.0	16.9						2085.4
Unit Cost (in millions)	0.04	0.07	90.0								0.04
Dogogiption:											

Description:

against near term threat reactive armor. Development of HELLFIRE II was completed in 3rd Qtr, FY 93. The first full production contract was awarded on 26 May 93. HELLFIRE II includes hardening of the laser seeker against countermeasures, further warhead improvements for the long term, replacement training, testing, fielding, and deployment of these aircraft. Beginning in FY 90, the missile was reconfigured with an interim warhead to improve lethality countermeasures and advanced reactive armors. Using its semi-active laser homing guidance system, laser HELLFIRE is perfectly suited for precision HELLFIRE uses semi-active laser terminal guidance and is the primary anti-tank armament of the AH-64 Apache, OH-58D Kiowa Warrior, and Special Operations Helicopters and will be used by the RAH-66 Comanche, the Army's next generation Helicopter. Production buys are scheduled to support HELLFIRE is an air-to-ground missile system designed to defeat individual targets and minimize exposure of the delivery vehicle to enemy fire. Laser of the mechanical fuse with an electronic fuse, and restoration of the original length and weight. HELLFIRE II will defeat all known electro-optical strikes at a variety of individual hardpoint targets, while minimizing exposure of the aircraft and supporting troops.

	<_	A. APPN / BUDGET ACTIVITY TITLE/NO	T ACTIVITY	TITLE/NO		B. WEAPON	Z		Г	C. MANUFACTURER NAME	Γ	D. DATE	
Missiles Cost Analysis		MISSILE PROCUR	HOCURE	IEMENT / 2 / Other Missiles	er Missiles	LASE	R HELLFIRE MO	LASER HELLFIRE MSL (BASIC/IHW/HFII) (CZ0100)	/HFII)	HELLFIRE S)	HELLFIRE Systems Limited	Febi	February 1997
Missiles	aı		FY 96			FY 97			FY 98			FY 99	
Cost Elements	8	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
		\$000	Each	\$000	\$000	Each	\$000	000\$	Each	\$000	000\$	Each	\$000
Fiyaway Costs													
All-Up-Rounds		34133	750	46	83404	1800	46						
Containers		4549	3454	-	2351	1800	-						
GFE EXPIOSIVES Engineering Seminon		1941		-	1112			0					
Engineering Change Orders		782			3418			3000			3062		
Fielding		128			161			304			311		
Total Hardware		44273			3058 94976			3584 6888			3664 7037		
Engineering Support Project Mgt Admin Production Engineering Support Total Engineering Support		2706 3761 6467			5069 5924 10993			2908 5166 8074			2956 4658 7614		
Non-Recurring Disposal of Tooling/Test Equipment					1999						2277		
Cost Reduction Program Rate Tooling/Test Equipment Total Non-Recurring					1999						2277		
Total Flyaway		50740			107968			14962			16928		
Peculiar Support Equipment Environmental Protection Covers Total Peculiar Support Equipment													
Gross P-1 End Item Cost		50740			107968			14962			16928		
Net P-1 Full Funding Plus CY Adv Procurement Other Non P-1 Costs Initial Spares Mods		50740			107968			14962			16928		
Total		50740			107968			14962			16928		

	BUDGET PRO	BUDGET PROCUBEMENT HISTORY AND	PLANNIN	TORY AND PLANNING EXHIBIT (P-5A)					DATE Fel	February 1997	26
B. APPROPRIAT	B. APPROPRIATION / BUDGET ACTIVITY					C. P-1 ITEM NOMENCLATURE	DMENCLATUR	RE			
		MISSILE PROCUREMENT / 2 / Other Missiles					ASER HELLFI	LASER HELLFIRE MSL (BASIC//HW/HFII) (C70100)	IW/HFII) (C	(20100)	
	LINE ITEM / FISCAL YEAR	CONTRACTOR AND LOCATION	CONTRACT METHOD AND TYPE	CONTRACTED BY	AWARD DATE	DATE OF FIRST DELIVERY	QTY	UNIT COST \$000	SPECS AVAIL NOW	SPEC (F REV REQ'D	IF YES W/A
FY 96		HELLFIRE Systems, Limited Liability Company (HSLLC) Orlando, Fl	*FFP	MICOM	Jan-96	96-Inc	750	46	Yes	S ₂	
FY 97		HELLFIRE Systems, Limited Liability Company (HSLLC) Orlando, FI	# #	місом	Jan-97	May-99	1800	46	Yes	§	
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REMARKS:	* A competition was conducted between the Martin Marietta Technologies, Inc. and Rockwell International Corp. for HELLFIRE II development with firm-fixed-price not to exceed production options for FY 93-96. The development contract (with FY 93-96 production options) was awarded to Martin Marietta Technologies, Inc. after Rockwell, Int. chose no	n the Martin Marietta Technologies, In evelopment contract (with FY 93-96	nc. and Roc production	echnologies, Inc. and Rockwell International Corp. for HELLFIRE II development with firm-fixed-price not to exceed with FY 93-96 production options) was awarded to Martin Marietta Technologies, Inc. after Rockwell, Int. chose not to bid.	IELLFIRE tin Mariett	l developm a Technolo	ent with fir gles, Inc. a	m-fixed-price r tfter Rockwell,	not to ex Int. chos	ceed se not to	bid.

** An additional option for FY 97 was added to the current production contract in Oct. 95.

Exhibit P-5A Procurement History and Planning

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114K/HSLLC/FY96		FY 96		750	0	750		H													Н	H	H	Н	H	L		750	
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114K/HSLLC/FY97	Н	FY 97	A 1	1800	0	1800	H	Н			П	Н	H	Н	Ц	Ц				Н		Н	Н	Н				1800	
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Exhibit P-40R	Budget Item Justification Sheet

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	8	JDGET ITER	BUDGET ITEM JUSTIFICATION SHEET	ATION SHEI	1			February 1997	y 1997		
APPROPRIATION / BUDGET ACTIVITY	IVITY				P-1 ITEM NOMENCLATURE	LATURE					
	MISSILE PROCUR	MISSILE PROCUREMENT /Other Missiles	iles					LONGBOW HEL	CONGBOW HELLFIRE (C70300)		
	Prior Years	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete	To Complete Total Program
QUANTITY		352	1005	1465	2000	2030	2020	2020	2060		12952
COST (in millions)	41.2	185.2	249.3	264.7	328.5	287.3	298.6	249.9	210.7		2115.4
Initial Spares (in millions)											
Total (in millions)	41.2	185.2	249.3	264.7	328.5	287.3	298.6	249.9	210.7		2115.4
Unit Cost (in millions)		0.53	0.25	0.18	0.16	0.14	0.15	0.12	0.10		0.16

Description:

Longbow Apache to operate in adverse weather and dramatically increases the aircraft's survivability. Further, the Longbow HELLFIRE missile provides a lock-on-before-launch (LOBL) or lock-on-after-launch (LOAL) capability depending on target range and movement parameters. Longbow does not change the AH-64 mission or role, but provides for increased mission effectiveness by enhancing lethality and survivability. The production buys support training, fielding and deployment of the AH-64D Longbow Helicopter. All three Longbow programs elements (Fire Control Radar, D Model Apache Helicopter and provide the capability to conduct battle both day and night in adverse weather and with battlefield obscurants present. With its radio frequency guidance Longbow HELLFIRE Missile) were developed simultaneously and are scheduled to be fielded as a total system. Long Lead Items procurement in FY 95 provided for the procurement of materials for the first Low Rate Initial Production year (FY 96). This is required to meet system fielding requirements. substantially enhance survivability of the AH-64D Longbow Apache Helicopter. Longbow HELLFIRE uses a radio frequency guidance section. It will section, the Longbow HELLFIRE complements the semi-active Laser HELLFIRE II with a true fire and forget capability, maximizing the ability of the Longbow HELLFIRE is the air-to-ground missile system component of the Longbow system. It is designed to defeat individual targets and aser HELLFIRE and Longbow HELLFIRE are complementary. Both are required on the modern battlefield.

A. APPN / BUDGET ACTIVITY TITLENO MISSILE PROCUREMENT / 2 / Other Missiles ID	APPN / BUDGET ACTIV MISSILE PROCUI FY 96 TotalCost Qty \$000 Each	PROCUI	<u> </u>	MENT / 2 / Othe UnitCost \$000	r Missiles TotalCost	B. WEAPON LOT COT COT COT COT COT COT COT COT COT C	ONGBOW HELL	LONGBOW HELLFIRE (C70300) UnitCost TotalCost \$000	FY 98 Oty Each	C. MANUFACTURER NAME Longbow Limited Liability Company Company UnitCost TotalCos	ty Ost	D. DATE Febru Fy 99 Qty Each	February 1997 99 ty UnitCost ch \$000
All-Up-Rounds All-Up-Rounds Containers GFE Explosives Engineering Services Engineering Change Orders Fielding Acceptance Testing Total Hardware		133194 148 4247 2557 3976	352	378	213200 654 5192 2681 776 1555	1056	202	230024 2283 1180 4316 3651 999 1858	1465	157	300505 3185 1646 4433 5026 1073 1900	2000	150
Engineering Support Project Mgt Admin Project Mgt Admin Production Engineering Support Total Engineering Support Non-Recurring Disposal of Tooling/Test Equipment IPF Cost Reduction Program Rate Tooling/Test Equipment Total Non-Recurring		3415 6423 9838 12309 18945			3759 5455 9214 9214 1914 11100			5674 3782 9456 2459 7699			5755 3865 9620		
Total Flyaway Peculiar Support Equipment Environmental Protection Covers Total Peculiar Support Equipment		185214			249286			263925 800 800			327388		
Gross P-1 End Item Cost Less PY Adv Proc Net P-1 Full Funding Plus CY Adv Procurement Other Non P-1 Costs Initial Spares		185214			249286			264725			328505		
		185214			249286			264725			328505		

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B. APPROPRIATIO	B. APPROPRIATION / BUDGET ACTIVITY MISSILE P	MISSILE PROCUREMENT / 2 / Other Missiles				. P-1 ITEM N	C. P-1 ITEM NOMENCLATURE	LATURE LONGBOW HELLFIRE (C70300)	C70300)		
	LINE ITEM / FISCAL YEAR	CONTRACTOR AND LOCATION	CONTRACT METHOD AND TYPE	CONTRACTED BY	AWARD DATE	DATE OF FIRST DELIVERY	QTY Each	UNIT COST	SPECS AVAIL NOW	SPEC IF REV REQ'D	IF YES W/A
FY 96		Longbow Limited Liability Company (LLLC) Orlando, Fl		MICOM	Jan-96	Mar-97	352	378	Yes	Yes	*
FY 97		Longbow Limited Liability Company (LLLC) Orlando, Fl	Ħ.	MICOM	Jan-97	Jun-98	****1056	202	Yes	ΧΘΧ	*
FY 98		Longbow Limited Liability Company (LLLC) Orlando, Fi	A G	MICOM	Dec-97	Jun-99	1465	157	Yes	Yes	*
FY 99		Longbow Limited Liability Company (LLLC) Orlando, Fl	FFP***	MICOM	Dec-98	OO-unr	2000	150	Yes	Yes	*
REMARKS:	*System and development specifications are under government control, but the technical data package is not. **In the Longbow HELLFIRE's transition to production, performance based specifications will be baselined and used in all production contracts. ***Planned five year multiyear contract. ****Reflects actual contract quantity which is higher than FYDP. Program savings reinvested to buy additional missiles in accordance with the Cost Reduction Plan (1056).	is are under government control, but in to production, performance based soich is higher than FYDP. Program s	the technic pecification savings rein	al data package is not. s will be baselined and used invested to buy additional missi	in all produ	ction contr	acts.	Reduction Pla	In (1056)		

^{*}Reflects actual contract quantity which is nigher than FYDP. Program savings reinvested to buy ad

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	ã	BUDGET ITEM JUSTIFICATION SHEET	A JUSTIFICA	ATION SHEI				February 1997	y 1997		
APPROPRIATION / BUDGET ACTIVITY	VITY				P-1 ITEM NOMENCLATURE	LATURE					
	MISSILE PROCUF	MISSILE PROCUREMENT /Other Missiles	iles				JAVEL	JAVELIN (AAWS-M) SYSTEM SUMMARY (CC0007)	EM SUMMARY (CO	(20007)	
	Prior Years	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete Total Program	Total Program
QUANTITY	1575	1010	1020	1080	3316	5458	5403	7607		701	26600
COST (in millions)	437.0	200.9	161.3	143.1	326.6	466.0	409.5	475.9	7.1	95.3	2722.6
Initial Spares (in millions)					4.2	4.8	6.9	9.6	9.5	9.4	43.4
Total (in millions)	437.0	200.9	161.3	143.1	330.8	470.8	416.4	484.5	16.6	104.7	2766.0
Unit Cost (in millions)	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1		0.1	0.1
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DESCRIPTION: This project provides procurement funds for JAVELIN, the medium antitank system for infantry, scouts, and combat engineers. These battlefield obscurant conditions. The system's soft launch permits firing from a fighting position or from an enclosure. The JAVELIN is hardened against manportable antitank system for use in all forms of maneuver operations. It can be delivered by individual paratrooper, door bundle, tracked/wheeled vehicles, rail, ship and air. This system has a high kill rate against all known armor threats at extended ranges under day/night, adverse weather and forces must have the capability to defeat numerically superior armored forces. The JAVELIN, a replacement for the DRAGON, is a medium range, countermeasures and does not require extensive training for effective employment.

The Command Launch Unit (CLU) is reusable and consists of a target acquisition device, Built-In-Test (BIT), a trigger mechanism, and appropriate interfaces The round includes a missile encased in a disposable launch tube assembly. Attached to the launch tube are CLU mating connector, front and rear shock attenuators, removable front end cap, as well as a replaceable battery coolant unit (BCU), and adjustable and replaceable shoulder strap, and a replaceable desiccant.

have a secondary mission of destroying bunkers and will provide defensive capability against hovering helicopters. The CLU can be used in a stand-alone JUSTIFICATION: The operational concept envisioned for fighting the antiarmor battle requires an effective, extended range, manportable, fire-and-forget, DRAGON with a day/night integrated sight, capable of target acquisition in adverse weather and through battlefield obscurant conditions. This system will fighting position or to reload. The JAVELIN provides enhanced lethality over the DRAGON through the use of a tandem warhead which will defeat all weapon for dismounted combat forces. JAVELIN's fire-and-forget technology allows the gunner to fire and immediately take cover, move to another known armor threats. It is effective against stationary and moving targets. The JAVELIN is capable of operating at twice the range (2000m) of the mode for battlefield survelliance and target selection.

There were 3605 rounds procured through FY1997. Another 1080 are scheduled for procurement in FY1998 under the second year award of a three-year multiyear contract. The remaining 21,915 are planned for purchase in subsequent years. The Marine Corps is also procuring the Javelin. Exhibit P-40R

Budget Item Justification Sheet

TE February 1997		UnitCost	\$000	61				8	69 17 113			
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		TotalCost	\$000	202313	2265 11858	1937 225288	4220 11682 329 16231 1968	39228 666 439 2448 3155 3160	12332 665 2708 635 16340	326623	326623 4209	330832
C. MANUFACTURER NAME Joint Venture TI/MM		UnitCost	\$000	63			,	86	84 17 136 2			
	Z 00 VT	Offy	Each	1080				270	39 10 80			
WEAPON JAVELIN (AAWS-M) SYSTEM SUMMARY	000	TotalCost	000\$	67538 4852	786 10378 1205	722 8 5481	4455 8422 279 13156 1035 99672	26326 1095 306 4396 4627 1979 38729	3293 174 1084 160 4711	143112	143112	143112
IN (AAWS-M) S	CCOOO	UnitCost	\$000	71				118	103 22 170 2			
B. WEAPON JAVELIN	EV 97	Oty	Each	1020				206	129 13 174			
er Missiles		TotalCost	\$000	72236 6848	795 11968 1498	505 93850	5056 8119 417 13592 1451	24394 2072 269 4146 2612 2612 2612 2613	13283 281 2545 413 16522	161281	161281 34000	195281
ITY TITLE/NO REMENT / 2 / Other Missiles		UnitCost	\$000	101				187	117 28 201 2			
T ACTIVITY PROCURE	FY 96	Off	Each	1010				108	54 23 16			
A. APPN / BUDGET ACTIVITY TITLE/NO MISSILE PROCUREMENT / 2		TotalCost	000\$	101918	1325 20041 840	568 138964	6391 9513 577 16481 1458	20172 2614 228 3967 6315 266 33562	6310 644 3209 230 10393	200858	200858	200858
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Missiles Cost Analysis	Missiles	Cost Elements	Missile Hardware- Recurring	All Up Round Engineering Services	Engineering Change Orders Contractor Prod Engineering Support Acceptance Testind	Fielding Subtotal Missile Hardware	Procurement Support Government Project Mgt Admin Government Production Engineering Admin Pub/Tech Data Subtotal Support Cost Non-Recurring Production Total Missile Flyaway	Command & Launch Hardware Command Launch Unit Engineering Services Engineering Change Orders Contractor Prod Engineering Support Fielding Non-Recurring Production Total CLU Flyaway	Training Devices Field Tactical Trainer - Student Station Field Tactical Trainer - Instructor Station Basic Skills Trainer Missile Simulation Round SubTotal Support Cost	Gross P-1 End Cost	Net P-1 Full Funding Cost Net P-1 Full Funding Cost PLUS P-1 CY Adv. Proc. Other Non P-1 Costs Initial Spares MODS	тотаг

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B. APPROPRIATION / BUDGET ACTIVITY					2. P-1 ITEM N	C. P-1 ITEM NOMENCLATURE	Æ			
	MISSILE PROCUREMENT / 2 / Other Missiles					AVELIN (AAW	JAVELIN (AAWS-M) SYSTEM SUMMARY (CC0007)	MARY (C	(20002)	
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		AND TYPE			DELIVERY	Each	000\$	MON	REQ'D	
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FY 97	Joint Venture TI/MM*	SS/FFP	MICOM	May-97	Oct-99	1020	71			
FY 98	Joint Venture TI/MM*	SS/FFP	MICOM	Dec-97	0ct-00	1080	63			
FY 99	Joint Venture TI/MM*	SS/FFP	MICOM	Dec-88	0-150	200	5			
Command Launch Unit										
FY 96	Joint Venture TI/MM*	SS/FFP	MICOM	Feb-96	Oct-98	108	187			
FY 97	Joint Venture TI/MM*	SS/FFP	MICOM	May-97	Oct-99	506	118			
FY 98	Joint Venture TI/MM*	SS/FFP	MICOM	Dec-97	Oct-00	270	86			
FY 99	Joint Venture TI/MM*	SS/FFP	MICOM	Dec-98	Oct-01	423	93			
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	Sim	Simulator and Trail	raining Dev	ning Device Justification	ition			Februs	February 1997
Appropriation / P-1 Line Item	ltem .		Weapon System (if applicable)	icable)		Equipment Nomenclature			PE
MISSILE PROCUREM	MISSILE PROCUREMENT/JAVELIN (AAWS-M) SYSTEM SUMMARY) SYSTEM SUMMARY	Javelin (AA	Javelin (AAWS-M) Training Devices (H08300)	(H06300)	See Trainir	See Training System Description Paragraph	aragraph	
Fin Plan	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	Total
Quantity									
(Each)									
Proc	26621	16522	4711	16340	29926	25678	27765		147563
(\$000)									
RDT&E									
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0&8									
(\$000)									

TRAINING SYSTEM DESCRIPTION:

- 1. Field Tactical Trainer (FTT) Student Station This item will be used to teach force-on-force tactics and practice tasks to prepare for the U.S. Army Training Evaluation Program (ARTEP) and U.S. Marine Corps Readiness Evaluation System.
- basic individual skills required to operate the JAVELIN and for qualification training. The device will be used by the active U.S. Army and the 2. The FTT Instructor Station - This item will be used in a traditional outdoor range environment at the institution and unit level to refine the U.S. Marine Corps.
- 3. Basic Skills Trainer (BST) This item is used for development and retention of tactical and technical gunnery skills. Training will be conducted in both the institution and unit level. The training device will be used by the active U.S. Army and the U.S. Marine Corps.
- 4. Missile Simulation Round (MSR) This item is a three-dimensional full-size replica, nonoperational mock-up of the JAVELIN tactical round. procedures with the CLU. Additionally, it will be used in field handling and mobilization tactical deployment exercises. The device will be used It is capable of attachment to a tactical Command Launch Unit (CLU). It will be used to practice handling, and assembly/disassembly by the active U.S. Army and the U.S. Marine Corps.

Simulate	Simulator and Training Device Justification (Page 2)	Device .	Justificat	ion (Pa	ge 2					Date Fet	February 1997	4
Appropriation / P-1 Line Item		Weapon System (if applicable)	(if applicable)			IOC Date	Equipmen	Equipment Nomenclature				PE
MISSILE PROCUREMENT/JAVELIN (AAWS-M) SYSTEM SUMMARY	SYSTEM SUMMARY	AVELIN (A	AVELIN (AAWS-M) Training Devices	Devices		Ą		See Training System Description Paragraph	tem Descr	iption Paragraph		
		joc	Ready	Avg	Pric	Prior Years	Œ	FY 1997	Ĺ	FY 1998	FΥ	1999
Training Device By Type	Site	Date	For Tng Date	Student Thruput	Ωty	Cost	Qty	Cost	Qfy	Cost	Qty	Cost
					Each	\$000	Each	\$000	Each	\$000	Each	\$000
FTT Student Station	Ft Benning	Apr-96	May-96	12	126	18946	129	13283	39	3293	180	12332
FTT Instructor Station	Ft Benning	Apr-96	May-96	12	36	1564	13	281	10	174	33	665
Basic Skills Trainer	Ft Benning	Aug-96	96-deS	12	23	5383	15	2545	8	1084	24	2708
Missile Simulation Round	Ft Benning	Oct-95	Nov 95	12	228	728	174	413	80	160	333	635
Total						26621		16522		4711		16340

Simi	ulator	Simulator and Training Device Justification (Page 3)	ng De	vice Justi	ficatio	n (Page 3				DATE	February 1997	
Training Device By Type FTT Student Station						Weapon System (if applicable) Javelin (AAWS-M) Weapon System	applicable) Weapon Syst	ma)				
Description / Justification This item will be used to teach force-on-force Corps Readiness Evaluation System.	teach for	orce-on-force stem.		and practice	s tasks to	o prepare for	the U.S	. Army Eval	uation F	tactics and practice tasks to prepare for the U.S. Army Evaluation Programs and the U.S. Marine	d the U.	S. Marine
i	Pri	Prior Years	Ę	FY 1997	Ę	FY 1998	Ę	FY 1999	Cost 1	Cost To Complete	To	Total Cost
Financial Plan	Qţ	Cost	Qty	Cost	Qf	Cost	Off	Cost	Qt	Cost	Qty	Cost
	Each	\$000	Each	\$000	Each	\$000	Each	\$000	Each	\$000	Each	\$000
HARDWARE COSTS Device (hardware)	126	13901	129	11353		2582		11195	1070	59925	1544	98956
Engineering Change Order				125		28		126		09		492
Nonrecurring		2022		326		264		295		1029		3936
Production Eng Support		2870		1479		419		716		3050		8534
SubTotal Hardware Costs	126	18946	129	13283	39	3293	180	12332	1070	64064	1544	111918
SubTotal Support Costs												
			·									
TOTAL COSTS		18946		13283		3293		12332		64064		111918

						DATE		
	BUL	BUDGET ITEM JUS	TIFICATION SHEET	EET			February 1997	
APPROPRIATION / BUDGET ACTIVITY	IVITY			P-1 ITEM NOMENCLATURE	13			
	MISSILE PROCUREMENT /Other Missiles	VT /Other Missiles				JAVELIN (AAWS-M) (ADV PROC) (CC0007)	(DV PROC) (CC0007)	
	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
QUANTITY								
COST (in millions)	0.0	34.0	0.0	0.0	0.0	0.0	0.0	0.0

defeat numerically superior armored forces. The JAVELIN, a replacement for the DRAGON, is a medium range, manportable antitank system for use system has a high kill rate against all known armor threats at extended ranges under day/night, adverse weather and battlefield obscurant conditions. multiyear procurement. JAVELIN is a medium antitank system for infantry, scouts, and combat engineers. These forces must have the capability to The system's soft launch permits firing from a fighting position or from an enclosure. The JAVELIN is hardened against countermeasures and does in all forms of maneuver operations. It can be delivered by individual paratrooper, door bundle, tracked/wheeled vehicles, rail, ship and air. This DESCRIPTION: These advance procurement funds will provide economic order quantities for year two and year three of the Javelin three-year not require extensive training for effective employment.

WEAPON SYS	WEAPON SYSTEM ADVANCE PROCUREMENT EXHIBIT (P-10a)	PROCUREMENT	EXHIBIT (P-10a	(CURRENT YEAR FOR FISCAL YEAR PROGRAM	SAL YEAR PROGRAM	
WOO)	(COMPARISON OF REQUEST TO EXECUTION)	FOLIFST TO FXF	CILTION			1997	
	(TOA, Dolla	(TOA, Dollars in Thousands)			DATE Fe	February 1997	
Weapon System Type (Model/Series No.)		FIRST SYSTEM AWARD DATE	NTE.	FIRST SYSTEM COMPLETION DATE		INTERVAL BETWEEN	
JAVELIN (AAWS-M) (ADV PROC) (CC0007)	(CC0007)	May 1997		August 2000		SYSTEM COMPLETIONS (MONTHS)	
Advance Procurement / Advance Funding Items Requested / Actual	Quantity	Date Contract Award Required / Actual	Date Delivery of First Equipment Required / Actual	Production Lead Time in Months Total Requested (Adm/Prod) Actual (Adm/Prod)	Total Cost Requested	Actual Contract Cost	5
(1)	(2)	(3)	(4)	(2)	(9)	(1)	
1. CFE							
2. GFE (Specify)							
3. SUBTOTAL						•	
4. EOQ (MYP)	4396	Dec-97	Dec-98	24	34000		34000
5. (CFE)							
6. (GFE) (Specify)							
7. SUBTOTAL					34000		34000
8. Design							
9. Other (Indicate Specific Items)							
10. TOTAL					34000		34000
NARRATIVE DESCRIPTION							
These funds will produce economic order quantities for Javelin all un round (4396); command Jaunch unit (693); field tactical trainer	omic order quantiti	es for Javelin all	in round (4396).	command launch	unit (693): field ta	ortical trainer	tudent

These funds will procure economic order quantities for Javelin all up round (4396); command launch unit (693); field tactical trainer, student station (219); field tactical trainer, instructor station (49); and basic skills trainer (32). These funds will be awarded on year one of the Javelin three-year multiyear contract. The multiyear contract will be awarded May 97 with an option for year two to be awarded in Dec 97 and option two for year three in Dec 98.

Exhibit P-40R	Budget Item Justification Sheet
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							DATE				
	ā	UDGET ITEN	BUDGET ITEM JUSTIFICATION SHEET	ATION SHE	H.			Februa	February 1997		
APPROPRIATION / BUDGET ACTIVITY	VITY				P-1 ITEM NOMENCLATURE	LATURE					
	MISSILE PROCUF	MISSILE PROCUREMENT /Other Missiles	se:					TOW 2 SYSTEM SI	TOW 2 SYSTEM SUMMARY (C59300)		
	Prior Years	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete Total Program	rotal Program
QUANTITY	144783										144783
COST (in millions)	2256.2	9.7	13.6	1.3	0.0	0.0	0.0	0.0	0.0		2280.8
Initial Spares (in millions)	20.2										20.2
Total (in millions)	2276.4	9.7	13.6	1.3							2301.0
Unit Cost (in millions)	0.016										0.016

System requirement for Close Combat Maneuver Forces. TOW is used primarily to destroy formations of armored vehicles, but is also an effective assault weapon against vehicles, field fortifications, and emplacements. TOW was a part of a combined united nations interagency force in Somalia and may be Cobra. TOW is designated as the point target weapon on selected helicopters. TOW 2 has two distinct improvements, increase performance/hardening and a 6" full caliber warhead. TOW 2A added a small shaped tip of the TOW 2 probe to counter reactive armor, TOW 2B is an improvement to TOW 2 used against other regional threats. TOW can be fired from a ground tripod or from specifically adapted vehicles, e.g., ITV, Bradley, HMMWV, and DESCRIPTION: TOW (Tube-Launched, Optically-Tracked, Wire-Guided Missile System) is designed to fulfill, the Heavy Antitank Assault Weapon lethality based on a new warhead, fuze, and software to obtain a fly-over-shoot-down missile.

JUSTIFICATION: FY 98 funding is required to complete plant transition/closure.

Missiles Cost Analysis		A. APPN / BUDGET ACTIVITY TITLE/NO MISSILE PROCUREMENT / 2	ET ACTIVIT PROCUR	N / BUDGET ACTIVITY TITLENO MISSILE PROCUREMENT / 2 / Other Missiles	er Missiles	B. WEAPON TOW 2	N 72 SYSTEM SU	EAPON TOW 2 SYSTEM SUMMARY (C59300)		C. MANUFACTURER NAME		D. DATE Febr	.TE February 1997
Missiles	9		FY 96			FY 97			FY 98			FV 99	
Cost Elements	CD	TotalCost	Qty	UnitCost	TotalCost	Of C	UnitCost	TotalCost	Q.	UnitCost	TotalCost	Ot St	UnitCost
	Ц	000\$	Each	\$000	000\$	Each	\$000	\$000	Each	\$000	\$000	Each	\$000
Missile Contract													
Engineering Change Orders (Value Engineering)													
SUBTOTAL MISSILE HARDWARE													
Non-Recurring Costs Capstan Block Plant Transition/Closure		5000 1650			4600 5868			1029					
SUBTOTAL NONRECURRING COST		6650			10468			1029					
PROCUREMENT SUPPORT-RECURRING Contractor Engineering				,									
Production Engineering Government Test		1775			1767			150					
Project Management Admin Fielding		1113			1261 75			147					
SUBTOTAL	-	2996			3103			297					
Total Flyaway		9646			13571		-	1326					
Support Cost Peculiar Support Equipment Launcher (N/S) Training Device (B/S) DMPE Engineering Change Orders Other (Specify) FDT					31.50						-		
SUBTOTAL SUPPORT COST		40										100	
Gross P-1 End Cost		9896			13571			1326					
Net P-1 Full Funding Cost PLUS P-1 CY Adv. Proc.		9686			13571			. 1326					
Other Non P-1 Costs Initial Spares MODS		40728			2311			5717 62755			5821 63774		
TOTAL		50414			15898			69798			69595		
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	BUDGET PROCUREMENT HISTORY AND	PLANNIN	ORY AND PLANNING EXHIBIT (P-5A)					Ē	February 1997	97
B. APPROPRIATION / BUDGET ACTIVITY MISSILE F	MISSILE PROCUREMENT / 2 / Other Missiles			0	. P-1 ITEM NC	C. P-1 ITEM NOMENCLATURE TOW 2 SYS	VCLATURE TOW 2 SYSTEM SUMMARY (C59300)	1Y (C5930)	6	
LINE ITEM / FISCAL YEAR	CONTRACTOR AND LOCATION	CONTRACT METHOD	CONTRACTED BY	AWARD DATE	DATE OF FIRST	OTY fact	UNIT COST	SPECS AVAIL NOW	SPEC REV REO'D	IF YES W/A
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FY 1997 Support & Plant Transition/Closure	Hughes Aircraft Tucson, AZ	TBD	MICOM	Jun-97	A/N	N/A	N/A	A/A	Ą Ż	
FY 1998 Complete Plant Transition/Closure	Hughes Aircraft Tucson, AZ	TBD	MICOM	TBD	N/A	N/A	N/A	N/A	A/N	
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	Ó	BUDGET ITEM JU	M JUSTIFICA	STIFICATION SHEET	ᇤ			February 1997	y 1997		
APPROPRIATION / BUDGET ACTIVITY	WITY				P-1 ITEM NOMENCLATURE	LATURE					
	MISSILE PROCUR	MISSILE PROCUREMENT ARMY/Activity 2	ity 2					MLRS ROCKET (C65400)	ET (C65400)		
	Prior Years	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete Total Program	Total Program
QUANTITY	478398	1326	1674	0	534	929	240	878	1290		485016
COST (in millions)	3569.7	44.6	41.4	2.9	19.0	19.9	19.8	54.0	62.6		3833.9
Initial Spares (in millions)											
Total (in millions)	3569.7	44.6	41.4	2.9	19.0	19.9	19.8	54.0	62.6		3833.9
Unit Cost (in millions)	0.01	0.03	0.02		0.04	0.03	0.08	90:0	0.05		0.01
PERCENTION: The Educated Desert (ED) Multiple Learner Booket Statem (MI DS) includes the received accomply which is a tube-launched entire	- Putendad	י יום בייים ל	Mulbiple Louis	2 toylood dor	G IM motors	C) includes	to todoot od	ocomply which	hie a titho-	annohod en	•

stabilized, free flight rocket. Major assemblies of the rocket are a fuzed warhead, a rocket motor, four fins, a fin opening/restraint device, and four sabots. capability of the existing MLRS by providing improvements in range, accuracy and effectiveness, and maneuver force safety (improved submunitions with DESCRIPTION: The Extended Range (ER) Multiple Launch Rocket System (MLRS) includes the rocket assembly which is a tube-launched, spin The rocket is packaged in a six rocket pod and can be fired one at a time or in ripples of two to six. The ER-MLRS rocket will enhance the self destruct fuzes).

increased range gives positioning flexibility and improves lateral ranging of targets on tomorrow's wider battlefronts. Operation Desert Storm identified the need for increased range to defeat long range targets. ER-MLRS will accomplish this mission. JUSTIFICATION: The objective of the system provides counterfire and suppression of enemy air defenses, light materiel, and personnel targets. The

Missiles Cost Analysis		A. APPN / BUDGET ACTIVITY TITLENO MISSILE PROCUREMENT ARMY	T ACTIVITY PROCURE	4/BUDGET ACTIVITY TITLE/NO MISSILE PROCUREMENT ARMY/Activity 2	Activity 2	B. WEAPON MLRS EXT	TENDED RAN	3. WEAPON MLRS EXTENDED RANGE ROCKET (C65402)		C. MANUFACTURER NAME		D. DATE Febr	TE February 1997
Missiles	₽		FY 96			FY 97			FY 98			FY 99	
Cost Elements	CD	TotalCost	Oty	UnitCost	TotalCost	Q ÇÎQ	UnitCost	TotalCost	δ	UnitCost	TotalCost) To	UnitCost
	П	\$Million	Each	co	\$Million	Each	49	\$Million	Each	ક્ક	\$Million	Each	S
FLY-AWAY COSTS													
HARDWARE													
Tactical Round (Less GFE) M85 Submunition Engineering Services		25.669 8.209 8.777	1326	19358	28.865 7.540 2.426	1500 630924	19243	0.000	00		11.628 2.863 2.508	534	21775
Engineering Change Orders Fielding		0.740			1.225			0.000			0.190		
SUBTOTAL		43.395			40.056			0.981			17.251		
PROCUREMENT SUPPORT													
Project Management Admin Test & Evaluation		0.618			1.240			1.277			1.315		
Service Support Contract		0.105			0.108			0.110			0.113		
SUBTOTAL		1.212			1.348	,		1.882			1.704		
TOTAL		44.607			41.404			2.863			18.955		
												•	
GROSS P-1 END COST LESS: PRIOR YR ADV. PROC.		44.607			41.404			2.863			18.955		
NET P-1 FULL FUNDING COST		44.607			41.404			2.863			18.955		
PLUS CURRENT YEAR ADV. PROC.													
OTHER NON P-1 WEAPON SYSTEM COSTS INITIAL SPARES MODS					,		- 1						
TOTAL		44.607			41.404			2.863			18.955		

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BUDGET PRO	BUDGET PROCUREMENT HISTORY AND	PLANNIN	IRY AND PLANNING EXHIBIT (P-5A)					Fe	February 1997	_
B. APPROPRIATION / BUDGET ACTIVITY					C. P-1 ITEM N	C. P-1 ITEM NOMENCLATURE	RE		þ	
MISSILE	MISSILE PROCUREMENT ARMY/Activity 2					MLRS EXTE	MLRS EXTENDED RANGE ROCKET (C65402)	CKET (CB	102)	1
LINE ITEM / FISCAL YEAR	CONTRACTOR AND LOCATION	CONTRACT METHOD AND TYPE	CONTRACTED BY	AWARD DATE	DATE OF FIRST DELIVERY	QTY	UNIT COST	SPECS AVAIL NOW	SPEC IF YES W/A REV REQ'D	S W/A
Tactical Round (Less GFE)/ER-MLRS FY 94 & Prior FY 96 FY 99	Lockheed Martin Vought Sys, Dallas, TX Lockheed Martin Vought Sys, Dallas, TX Lockheed Martin Vought Sys, Dallas, TX Lockheed Martin Vought Sys, Dallas, TX		PEO-Tactical Missiles/MICOM PEO-Tactical Missiles/MICOM PEO-Tactical Missiles/MICOM PEO-Tactical Missiles/MICOM	Aug-96 Feb-97 Dec-98		1326 1500 534	19358 19243 21775	N N N N N N N N N N N N N N N N N N N	2 2 2 2	
NO TACTICAL ROCKETS PROCURED IN FY 95.	ED IN FY 95.									

* Quantity differs from FYDP to reflect best current estimate.

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	8	BUDGET ITEM JI	1 JUSTIFICA	USTIFICATION SHEET	ET			February 1997	y 1997		
APPROPRIATION / BUDGET ACTIVITY	VITY				P-1 ITEM NOMENCLATURE	LATURE					
	MISSILE PROCURI	MISSILE PROCUREMENT ARMY/Activity 2	ty 2					MLRS LAUNC	MLRS LAUNCHER (C65900)		
	Prior Years	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete Total Program	Total Program
OUANTITY	754			29	32	69	62	85	88		1126
COST (in millions)	1898.3	81.1	103.7	102.6	92.5	158.3	208.7	216.9	230.7		3092.8
Initial Spares (in millions)	153.9	5.1		1.0	7.1	8.6	16.5	23.2	27.3		242.6
Total (in millions)	2052.2	86.2	103.7	103.6	98.6	166.9	225.2	240.0	258.0		3335.4
Unit Cost (in millions)	2.7			3.6	3.1	2.8	2.9	2.8	2.9		3.0

Understanding, signed July 1979, with France, Germany and the United Kingdom; Italy was added in July 1982. FY 96 and FY 97 program support funds electronics providing increased processing capability, an embedded global positioning system for future munitions and improved fault isolation for ease of remanufactured launchers for the South Carolina, Arkansas and South Dakota NG. Initial Spares to support launcher remanufacture in FY 96 and FY 97 DESCRIPTION: The Multiple Launch Rocket System (MLRS) provides a high volume of fire power in a very short timeframe. Operationally, the concept is designed for the mobility, flexibility, and range requirements of the modern battlefield. Mounted on a derivative of the Bradley Fighting Vehicle (BFV), the 12-round launcher/loader requires a crew of three personnel to conduct launching missions. The design range in excess of 30 kilometers will allow are included in the total procurement cost. FY 98 and out quantities are for M270A1 upgrades. FY 98-03 funding also includes five batteries of rebuilt launcher maintenance. The ILMS will allow faster target engagement on time sensitive, short dwell time targets and greatly reduces time on the firing Mechanical System (ILMS) will be procured and become part of the M270A1 upgrade. The IFCS is a modification to the current Fire Control System point and reload operations in order to improve the survivability of the crew and the launcher. MLRS was jointly developed under a Memorandum of coverage of 90 percent of the targets available at that range. Starting in FY 98 an Improved Fire Control System (IFCS) and an Improved Launcher which provides the interface with the Fire Direction Center, the Munitions Controls and the MLRS Launcher. The IFCS will upgrade the system's are required for previously fielded launchers and to field launchers procured in FY 93, FY 94 and FY 95. FY 96 and FY 97 funds provide for launchers for deployment to MLRS Heavy Divisions.

operations, mitigates electronic hardware obsolescence and reduces O&S costs. The ILMS decreases stow to aim point timeline, enhances effectiveness JUSTIFICATION: The objectives of the system are counterfire and suppression of enemy air defenses, light materiel, and personnel targets. The system is designed for adaptation to other warheads such as scatterable mines, terminally guided munitions, and other smart munitions. MLRS is the Army's rocket launch platform for the next decade. The IFCS provides faster response times for high priority targets, enhances survivability, supports attack in engaging and supporting the force, and increases MLRS platform survivability.

Missiles Cost Analysis		A. APPN/BUDGET ACTIVITY TITLE/NO MISSILE PROCUREMENT A	T ACTIVITY PROCUE	V/BUDGET ACTIVITY TITLE/NO MISSILE PROCUREMENT ARMY/Activity 2	Activity 2	B. WEAPON	MLRS LAUNCHER (C65900)	(C65900)		C. MANUFACTURER NAME		D. DATE Febru	TE February 1997
	1												
Missiles	٥		FY 96			FY 97			FY 98			FY 99	
Cost Elements	8	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Oth	UnitCost
		\$Million	Each	€9	\$Million	Each	6	\$Million	Each	S	\$Million	Each	θ
GROUND EQUIPMENT HARDWARE													
Launcher		11.144	59	384286	13.450		384286	42.310	24	2014762	55.672	32	1739750
Carrier (GFE)		4.656	53	160552	7.069	35	201971					32	177000
2X9 Launcher		1.491	Š	70/97	1.405	१	2007	0.461	42	10976	0.718	49	11219
Peculiar Support Equipment		23.056			18.285								
Engineering Services Engineering Change Orders		22.286			24.916			1 505			18.243		
Fielding		8.290			7.002			0.000			3.315		
SUBTOTAL		70.991			94.372			94.920			84.435		
PROCUREMENT SUPPORT													
Project Management Admin Service Support Contract		9.213			8.439			6.215			6.462		
SUBTOTAL		10.102			9.331			7.729			8.022		
TOTAL		60			100			9					
					2			02.049			92.437		
GROSS P-1 END COST		81.093			103.703			102,649			92 457		
LESS: PRIOR YR ADV. PROC.													
NET P-1 FULL FUNDING COST	•	81.093			103.703			102.649			92.457		
PLUS CURRENT YEAR ADV. PROC						·							
OTHER NON P-1 WEAPON SYSTEM COSTS										-			
MODS MODS		5.077			0.000			0.998			7.098		
MOD SPARES		2.051			1.829			0.991			0.635		
TOTAL		196.789			215.645			209.475			194.886		
	1												

BUDGET PRO	BUDGET PROCUREMENT HISTORY AND	PLANNIN	ORY AND PLANNING EXHIBIT (P-5A)					DATE Fel	February 1997	
B. APPROPRIATION / BUDGET ACTIVITY				ĺ	C. P-1 ITEM NOMENCLATURE	OMENCLATU	RE			
MISSILE	MISSILE PROCUREMENT ARMY/Activity 2					ML	MLRS LAUNCHER (C65900)	(2006)		
LINE ITEM / FISCAL YEAR	CONTRACTOR AND LOCATION	CONTRACT METHOD AND TYPE	CONTRACTED BY	AWARD DATE	DATE OF FIRST DELIVERY	ΩTY	UNIT COST	SPECS AVAIL NOW	SPEC IF YE REV REO'D	F YES W/A
Launcher M270 FY 95	Lookheed Martin Vought Sys, Dallas, TX	SS/FFP	SS/FFP PEO-Tactical Missilas/MICOM	Mar-95	Nov-96	20	1826400		2	
Launcher Remanufacture FY 96 FY 97	Lockheed Martin Vought Sys, Dallas, TX Lockheed Martin Vought Sys, Dallas, TX	SS/FFP SS/FFP	PEO-Tactical Missiles/MICOM PEO-Tactical Missiles/MICOM	Aug-96 Nov-96	May-97 Nov-97	29 35	384286 384286	Yes	<u> </u>	
Launcher M270A1 FY 98* FY 99	Lockheed Martin Vought Sys, Daltas, TX Lockheed Martin Vought Sys, Daltas, TX	SS/FFP SS/FFP	PEO-Tactical Missiles/MICOM PEO-Tactical Missiles/MICOM	Oct-97 Oct-98	Apr-00 Mar-01	32	2014762	Yes	0 0 Z Z	· -
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REMARKS: First deliveries of FY 96 remanufacture launchers t	facture launchers by Red Riv	er Army E	by Red River Army Depot (RRAD) Oct 96; contract with Lockheed Martin Vought System delivers	ontract w	ith Lockt	need Mai	rtin Vought S	system	delivers	(2)

First deliveries of FY 96 reman 20 launchers starting May 97.

* Quantity differs from the FYDP to reflect the current best estimate.

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	Sim	lator and T	raining Dev	Simulator and Training Device Justification	ıtion			Februa	February 1997
Appropriation / P-1 Line Item			Weapon System (if applicable)	cable)		Equipment Nomenclature			PE
MISSILE	MISSILE PROCUREMENT/MLRS LAUNCHER	AUNCHER		MLRS LAUNCHER		LAUNCH	LAUNCHER MAINTENANCE TRAINER	AAINER	C65900
Fin Plan	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	Total
Quantity (Each)	0	0	2	2	0	2	0	0	9
Proc \$Million	0.000	0.000	2.000	2.000	0.000	2.000	0.000	000.0	6.000
RDT&E									0.000
O&S (\$Million)									0.000

TRAINING SYSTEM DESCRIPTION;

The MLRS Launcher Maintenance Trainer is used by the Ordnance Missile and Munitions Center and School (OMMCS) to provide training in troubleshooting and maintenance procedures for the MOS 27M. The trainer consists of a classroom station to provide computer controlled troubleshooting simulations, a Launcher Loader Module (LLM) mockup to provide hands-on maintenance training (remove/replace) and an Electronics Repair Station to provide training in Automated Test Equipment (ATE) and off-launcher repair. Trainer density increases with M270A1 fielding requirements.

Simulate	Simulator and Training Device Justification (Page 2)	Device J	Justificat	ion (Pa	ge 2)	_				Date Feb	February 1997	
Appropriation / P-1 Line Item		Weapon System (if applicable)	(if applicable)			IOC Date	Equipmer	Equipment Nomenclature				PE
MISSILE PROCUREMENT/MLRS LAUNCHER	UNCHER	¥	MLRS LAUNCHER			Mar 00		Launcher	Launcher Maintenance Trainer	ce Trainer		006290
		loC	Ready	Avg	Pric	Prior Years	Ĺ	FY 1997	F	FY 1998	Ē	FY 1999
Training Device By Type	Site	Date	For Tng Date	Student	Q Qt	Cost	Qt	Cost	Ş	Cost	Qt	Cost
					Each	\$Million	Each	\$Million	Each	\$Million	Each	\$Million
Maintenance	Redstone Arsenal, AL	66-deS	Mar-00	12 per class					2	2.000	2	2.000
Total										2		2

P-40R	Sheet
Exhibit	Budget Item Justification

Paper Pape								DATE				
P-1 ITEM NOMENCLATURE ARMAY TACTICAL MSL SYS (ATACMS) - SYS SUIN life of the properties of		B	JDGET ITE	M JUSTIFICA	ATION SHE	1 3			Februar	y 1997		
MISSILE PROCUREMENT / Other Missiles Prior Years FY 1996 FY 1998 FY 1999 FY 1999 FY 2000 FY 2001 FY 2002 FY 2003 1 1597 120 97 153 160 160 160 FY 2002 FY 2003 1 1024.0 121.3 91.8 97.8 103.0 100.1 111.6 13.8 0.0 nillions 2.3 121.3 92.8 98.7 103.0 100.1 111.6 13.8 0.0 ons 0.6 0.6 0.6 0.7 0.7 13.8 13.8 0.0	APPROPRIATION / BUDGET ACTIV	VITY				P-1 ITEM NOMENC	LATURE					
Prior Years FY 1996 FY 1996 FY 1996 FY 1999 FY 2000 FY 2000 FY 2002 FY 2003 10 10 10 10 10 10 10 10 10 10 10 10 10 1		MISSILE PROCURI	EMENT /Other Miss	siles				ARMY TAC	TICAL MSL SYS (A'	TACMS) - SYS SUN	4 (C98510)	
1597 120 97 153 160 160 160 160 13.8 0.0 11116 13.8 0.0 11116 13.8 0.0 11116 13.8 0.0 11116 13.8 0.0 10.8 10		Prior Years	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete	Total Program
) 1024.0 121.3 91.8 97.8 103.0 100.1 111.6 13.8 0.0 nillions) 2.3 121.3 92.8 98.7 103.0 100.1 111.6 13.8 0.0 ns) 0.6 0.6 0.6 0.7 nillions) 0.6 0.6 0.6 0.7 nillions	QUANTITY	1597	120	97	153	160	160	160				2447
nillions) 2.3 1.0 0.9 100.1 111.6 13.8 13.8 ons) 0.6 1.0 1.0 0.6 0.6 0.6 0.7 13.8<	COST (in millions)	1024.0	121.3		97.8	103.0	100.1	111.6	13.8	0.0		1663.4
one) 0.6 1.0 1.0 0.6 0.6 0.6 0.7 11.6 13.8	Initial Spares (in millions)	2.3		1.0	6.0							4.2
ons) 0.6 1.0 1.0 0.6 0.6 0.6 0.7	Total (in millions)	1026.3	121.3	92.8	98.7	103.0	100.1	111.6	13.8			1667.6
	Unit Cost (in millions)	0.6	1.0	1.0	9.0	9.0	9.0	0.7				0.7

missile. The inherent GPS accuracies will be achievable independent of range. Army TACMS missiles are fired from the Multiple Launch Rocket System Army TACMS includes Guided Missile and Launching Assembly; Test Set, Guided Missile System; Training Set, Guided Missile System: M-165; Trainer, (MLRS) modified M270 launcher and are being deployed within the ammunition loads of corps MLRS battalions and/or division artillery MLRS batteries. materiel (APAM) warhead. The Army TACMS Block IA integrates global positioning system (GPS) components and increases the range of the Block I DESCRIPTION: The Army TACMS is a ground-launched missile system consisting of a surface-to-surface guided missile with an anti-personnel anti-Test Device, Guided Missile: M70; Modified M270 Launcher; and the Army TACMS Missile Facilities.

complexes. The Block IA missile will destroy high value targets at ranges approximately twice that of the current Block I. The Block IA will be especially JUSTIFICATION: The Army TACMS is air transportable and provides a deep fires missile system that operates in near all-weather conditions, day or night. It is used to attack tactical surface-to-surface missile sites, air defense missile sites, logistics elements and command/control/communications suited for destroying enemy surface-to-surface missile system launchers.

Similar A too Cooling M	Ψ.	A. APPN / BUDGET ACTIVITY TITLE/NO	T ACTIVITY	N/ BUDGET ACTIVITY TITLE/NO MISSII E DEOCI IDEMENT 79 / Other Missiles	or Missilso	B. WEAPON	TOW INCITED	A DEANY TACTION AND SOCIAL MATERIAL MATERIAL SOCIAL MATERIAL MATERIAL SOCIAL MATERIAL MA		C. MANUFACTURER NAME		D. DATE	
Missiles Cost Analysis			10001	ME141727 OIL	di Missilds	וווועא	SUM (C98510)	915 (ATACMS) 98510)	010-	Lockneed Martin Vougnt Systems	artin vougnt	Febr	rebruary 1997
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Engineering Change Orders (ECOs)		16631			14806			9977			8666		
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Engineering Change Orders (ECOs) Fielding		135		- 1									
Subtotal Missile Hardware		0/665											
Procurement Support Project Management Admin Production Engineering Support Test and Evaluation Subtotal Procurement Support	·	3845 5216 2733 1179 4											
TOTAL MISSILE FLYAWAY		51770											
Command & Launch Integration Command & Launch Integration Spt Subtotal C&L Integration													
Support Cost Missile Test Device ATMF Test and Support Equipment Subtotal Support Cost													
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TOTAL		51770											
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Missiles Cost Analysis	∢	A. APPN / BUDGET ACTIVITY TITLE/NO MISSILE PROCUREMENT / 2	T ACTIVITY PROCURE	0	B. WEAPON ther Missiles ATA	B, WEAPON	J ATACMS BLK IA (C98501)	IA (C98501)		C. MANUFACTURER NAME Lockheed Martin Vought	nt	D. DATE Februs	TE February 1997
Miceilee	9		EV OR			EV 07			200	Systems	ems	200	
Cost Elements	8	TotalCost	δţ	UnitCost	TotalCost	Ş	UnitCost	TotalCost	Ş Ş O	UnitCost	TotalCost	A O	UnitCost
		\$000	Each	\$000	\$000	Each	\$000	000\$	Each	\$000	\$000	Each	\$000
Missile Hardware- Recurring Prime Contract GFE		43778	02	625	65290	46	673	87886	153	574	92080	160	576
Flight Kits Engineering Services Engineering Change Orders (ECOs) Fielding Subtotal Missile Hardware		378 10781 1071 444 56452			1216 14806 1094 142 82548			318 9977 827 520 99656			3100 8666 870 270 105114		
Procurement Support Project Management Admin Production Engineering Support Test and Evaluation Subtotal Procurement Support		1754 2527 1813 6094			3906 4537 824 9267			4138 5992 3668 1 3798			4246 6288 3002 13536		
TOTAL MISSILE FLYAWAY		62546			91815			113454			118650		
Command & Launch Integration Command & Launch Integration Spt Subtotal C&L Integration		755 755						1040 1040			1750		
Support Cost Missile Test Device ATMF Test and Support Equipment Subtotal Support Cost		2704 3528 6232											
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R APPROPRIATION / BLINGET ACTIVITY				Ĭ	C. P-1 ITEM NOMENCLATURE	OMENCLATUR	- -		oldan)	5
	MISSILE PROCUREMENT / 2 / Other Missiles				ARMY	TACTICALM	ARMY TACTICAL MSL SYS (ATACMS) - SYS SUM (C98510)	- SYS SU	M (C9851	(0
LINE ITEM / FISCAL YEAR	CONTRACTOR AND LOCATION	CONTRACT METHOD AND TYPE	CONTRACTED BY	AWARD DATE	DATE OF FIRST DELIVERY	QTY	UNIT COST	SPECS AVAIL NOW	SPEC II REV II	IF YES W/A
Army TACMS Block I Missile										
FY 96	LMVS, Dallas, TX	SS/FP	MICOM	Nov-95	Mar-97	20	664			
Army TACMS Block IA Missile										
	LMVS, Dallas, TX LMVS, Dallas, TX	SS/FP SS/FP	MICOM	Jun-96 Apr-97	Aug-97 May-98	70	625	å	Yes	Oct-96
FY 98	LMVS, Dallas, TX LMVS, Dallas, TX		MICOM		May-99 Mar-00	153	574 576	ĝ		Oct-96

REMARKS:										

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	BUL	BUDGET ITEM JUS	JUSTIFICATION SHEET	ЕЕТ			February 1997	
ET AC	T ACTIVITY			P-1 ITEM NOMENCLATURE	E			
	MISSILE PROCUREMENT /Other Missiles	VT /Other Missiles			ARM	ARMY TACTICAL MSL SYS (ATACMS) - (ADV PROC) (C98510)	ACMS) - (ADV PROC) (C98	(210)
	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
	0.0	0.69	0.0	0.0	0.0	0.0	0.0	0.0

PPROPRIATION / BUDGE

QUANTITY COST (in millions) DESCRIPTION: Funding for economic order quantity (EOQ) for the FY 98-01 Multiyear Procurement of Army TACMS. The Army TACMS is a ground-Block IA integrates global positioning system (GPS) components and increases the range of the Block I missile. Army TACMS missiles are fired from launched missile system consisting of a surface-to-surface guided missile with an anti-personnel anti-materiel (APAM) warhead. The Army TACMS the Multiple Launch Rocket System (MLRS) modified M270 launcher and are being deployed within the ammunition loads of corps MLRS battalions and/or division artillery MLRS batteries.

JUSTIFICATION: The EOQ funding is required for the buy out of the total Improved Missile Guidance Sets required for the multiyear procurement of the Army TACMS.

WEAPON SYS	WEAPON SYSTEM ADVANCE PROCUREMENT EXHIBIT (P-10a)	PROCUREMENT	EXHIBIT (P-10a		CURRENT YEAR FOR FISCAL YEAR PROGRAM	CAL YEAR PROGRAM
(COM	(COMPARISON OF BI	OF REQUEST TO EXECUTION	CLITION			1997
		(TOA, Dollars in Thousands)			DATE Fe	February 1997
Weapon System Type (Model/Series No.)		FIRST SYSTEM AWARD DATE	ATE	FIRST SYSTEM COMPLETION DATE	ON DATE	INTERVAL BETWEEN
ARMY TACTICAL MSL SYS (ATACMS) - (ADV PROC)) - (ADV PROC)		Dec-97		May-99	SYSTEM COMPLETIONS (MONTHS)
Advance Procurement / Advance Funding Items Requested / Actual	Quantity	Date Contract Award Required / Actual	Date Delivery of First Equipment Required / Actual	Production Lead Time in Months Total Requested (Adm/Prod) Actual (Adm/Prod)	Total Cost Requested	Actual Contract Cost
(3)	(2)	(6)	(4)	(2)	(9)	(2)
1. CFE						
2. GFE (Specify)						
3. SUBTOTAL						
4. EOQ (MYP)	633	76-unc	Sep-98	15	00069	
5. (CFE)						
6. (GFE) (Specify)						
7. SUBTOTAL					00069	
8. Design						
9. Other (Indicate Specific Items)						
10. TOTAL					00069	
NARRATIVE DESCRIPTION						

The bulk of the \$69M in FY 97 will be used to buy out the total 633 Improved Missile Guidance Sets (IMGS) units required for the FY 98-01 Multiyear Procurement.

							DATE				
	8	BUDGET ITEM JUSTIFICATION SHEET	A JUSTIFICA	TION SHE				February 1997	ry 1997		
APPROPRIATION / BUDGET ACTIVITY	IVITY				P-1 ITEM NOMENCLATURE	LATURE					
	MISSILE PROCUF	MISSILE PROCUREMENT /Other Missiles	iles					ATACMS/BA	ATACMS/BAT (CA6101)		
	Prior Years	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete Total Program	Total Program
QUANTITY					50	100	150	68	194	1223	1806
COST (in millions)					60.8	80.7	109.9	94.3	190.8	968.5	1505
Initial Spares (in millions)											
Total (in millions)					60.8	80.7	109.9	94.3	190.8	968.5	1505
Unit Cost (in millions)					1.2	0.8	0.7	1.1	1.0		

The Army TACMS Block IIA (ATACMS Block IIA) will be a ground launched, solid propellant, inertially DESCRIPTION: The Army Tactical Missile System Block II (ATACMS BLK II), a version of the currently fielded and combat-proven Army TACMS Block I launched from the Multiple Launch Rocket System (MLRS) modified M270 launcher and will be deployed within the ammunition loads of corps MLRS guided (GPS aided) missile system with 6 BAT P3I submunitions as its payload. The ATACMS Block IIA will be launched from the M270 launcher in response to the same Command and Control (C2) nodes applicable to the Block I, Block IA, and Block II missiles. Since the Block IIA payload only missile, will be a ground launched, solid propellant, inertially guided (GPS aided) missile system with 13 BATs or P3I BATs as its payload. It will be houses 6 submunitions rather than 13, as in the Block II, it is capable of achieving extended ranges comparable to the Block IA. battalions and/or division artillery MLRS batteries.

JUSTIFICATION: The primary mission of the ATACMS BLK II is to delay, disrupt, neutralize, or destroy armored combat vehicles/organization. ATACMS destroy the Block II target sets plus cold stationary tanks and armored combat vehicles as well as moving and stationary surface-to-surface missile (SSM) targets. Global Positioning System (GPS) technology will increase accuracy in flight. The mission of the ATACMS Block IIA will be to delay, disrupt, or BLK II will carry and dispense BAT and BAT P3I submunitions deep in enemy territory where these submunitions will automatically track and destroy transporter erector launchers (TELs) at extended ranges. The Block IIA missile will dispense 6 BAT P3I submunitions at ranges beyond the Block II

P-40R	Sheet
Exhibit	Justification
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	Budget

							DATE				
	B	BUDGET ITEM JUST		IFICATION SHEET	ET			Februa	February 1997		
APPROPRIATION / BUDGET ACTIVITY	WITY				P-1 ITEM NOMENCLATURE	LATURE					
	MISSILE PROCUREMENT /Other Missiles	EMENT /Other Miss	lles					ATACMS BLI	ATACMS BLK II (CA6105)		
	Prior Years	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete Total Program	Total Program
QUANTITY					20	100	150	89	144	673	1206
COST (in millions)					60.8	2.08	109.9	84.5	128.3	509.1	973
Initial Spares (in millions)											
Total (in millions)					60.8	80.7	109.9	84.5	128.3	509.1	973
Unit Cost (in millions)					1.2	8.0	0.7	8.0	0.8		

DESCRIPTION: The Army Tactical Missile System Block II (ATACMS BLK II), a version of the currently fielded and combat-proven Army TACMS Block I missile, will be a ground launched, solid propellant, inertially guided (GPS aided) missile system with 13 BATs or P3I BATs as its payload. It will be launched from the Multiple Launch Rocket System (MLRS) modified M270 launcher and will be deployed within the ammunition loads of corps MLRS battalions and/or division artillery MLRS batteries.

ATACMS BLK II will carry and dispense BAT and BAT P3I submunitions deep in enemy territory where these submunitions will automatically track and JUSTIFICATION: The primary mission of the ATACMS BLK II is to delay, disrupt, neutralize, or destroy armored combat vehicles/organizations. destroy targets. Global Positioning System (GPS) technology will increase accuracy in flight.

P-40H	Sheet
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	æ	BUDGET ITEM JUSTIFICATION SHEET	M JUSTIFICA	ATION SHE	H			February 1997	ту 1997		
APPROPRIATION / BUDGET ACTIVITY	IVITY				P-1 ITEM NOMENCLATURE	LATURE					
	MISSILE PROCUP	MISSILE PROCUREMENT /Olher Missiles	liles					ATACMS BLK	ATACMS BLK IIA (CA6110)		
	Prior Years	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete Total Program	Total Program
OLIANTITY									90	550	009
COST (in millions)								6.6	62.5	459.3	532
Initial Spares (in millions)											
Total (in millions)								9.6	62.5	459.3	532
Unit Cost (in millions)									1.3		
				1 11. 1911 - 12 0910		4 1	Il a manage	motion (hobis OOO) popine illustration to the property	anidad (CD)	C olded min	ile errobem

DESCRIPTION: The Army TACMS Block IIA (ATACMS Block IIA) will be a ground launched, solid propellant, inertially guided (GPS aided) missile system Control (C2) nodes applicable to the Block I, Block IA, and Block II missiles. Since the Block IIA payload only houses 6 submunitions rather than 13, as in with 6 BAT P3I submunitions as its payload. The ATACMS Block IIA will be launched from the M270 launcher in response to the same Command and the Block II, it is capable of achieving extended ranges comparable to the Block IA.

armored combat vehicles as well as moving and stationary surface-to-surface missile (SSM) transporter erector launchers (TELs) at extended ranges. JUSTIFICATION: The mission of the ATACMs Block IIA will be to delay, disrupt, or destroy the Block II target sets plus cold stationary tanks and The Block IIA missile will dispense 6 BAT P3I submunitions at ranges beyond the Block II system.

Missiles Cost Analysis		A. APPN / BUDGET ACTIVITY TITLE/NO MISSILE PROCUREMENT / 2	ET ACTIVITY PROCURE	PN/BUDGET ACTIVITY TITLENO MISSILE PROCUREMENT / 2 / Other Missiles	ar Missiles	B. WEAPON	N ATACMS BLK II (CA6105)	(II (CA6105)		C. MANUFACTURER NAME Lockheed Martin Vought	Sys	D. DATE Febn	TE February 1997
	₽		FY 96			FY 97			FY 98			FY 99	
Cost Elements	00	TotalCost	Oty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
		000\$	Each	\$000	\$000	Each	\$000	\$000	Each	\$000	000\$	Each	\$000
Missile Hardware- Recurring Prime Contract (Includes IPF)											39548	50	791
GFE												3	2
Flight Kits Engineering Services											1659		
Engineering Change Orders (ECOs)											1408		
Subtotal Missile Hardware											250 43434		
Procurement Support													
Project Management Admin Production Engineering Support											1940		
Test and Evaluation Subtotal Procurement Support			, , , , , , , , , , , , , , , , , , , 								6251 10272	-	
TOTAL MISSILE FLYAWAY											53706		
Command & Launch Integration Command & Launch Integration Spt Subtotal C&L Integration											920		
											036		
Support Cost Missile Test Device											2560		
Subtotal Support Cost											3595 6155	-	
Gross P-1 End Cost											60781		
Net P-1 Full Funding Cost											60781		
PLUS F-1 CY Adv. Proc. Other Non P-1 Costs													
Initial Spares				•					ė.				
TOTAL											60781		
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BUDGET PRO	BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)	PLANNIN	IG EXHIBIT (P-5A)					Fel	February 1997	97
B. APPROPRIATION / BUDGET ACTIVITY					C. P-1 ITEM N	C. P-1 ITEM NOMENCLATURE	RE			
	MISSILE PROCUREMENT / Other Missiles					A	ATACMS/BAT (CA6105)			
LINE ITEM / FISCAL YEAR	Ţ	CONTRACT	CONTRACTED BY	AWARD DATE	DATE OF FIRST	στ	Т.			IF YES W/A
		AND TYPE			DELIVERY	Each	\$000	MON	REQ'D	
ATACMS BLK II		-								
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R NAME / LOCATION	_	N.	÷	1-8-5	MAX.	+ Q	Number	_	INITIAL			٢	Prior 1 Oct.	5	Affe	Affer 1 Oct.	+	Affe	Affer 1 Oct		After 1 Oct	1.00 6.00	T	The n	"The minimum sustaining rate is 12 vear or 10 per month. However, at	m sust	aining P. Hov	rate is	*The minimum sustaining rate is 120 per year or 10 per month. However, at
LOCKHEED MARTIN	Н	•10		38	48	15	٦	Æ	REORDER	æ	Ц	Ц		T		4	+		-1	+	10	21	, E	creas	increased cost and risk, a reduced	t and	isk, a	reduce	0
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	ā	UDGET ITEI	BUDGET ITEM JUSTIFICATION SHEET	ATION SHE	H			February 1997	ry 1997		
APPROPRIATION / BUDGET ACTIVITY	YTIVI				P-1 ITEM NOMENCLATURE	LATURE					
	MISSILE PROCUF	MISSILE PROCUREMENT /Other Missifes	siles					BAT (CA6100)	A6100)		
	Prior Years	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete Total Program	Total Program
QUANTITY				305	547	1500	1900	2200	2900	10519	19871
COST (in millions)				85.2	100.1	170.3	200.8	200.1	238.9	762.5	1757.9
Initial Spares (in millions)											
Total (in millions)				85.2	100.1	170.3	200.8	200.1	238.9	762.5	1757.9
Unit Cost (in millions)				0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1
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attack of operating armored vehicles. The BAT is a guided submunition that searches for, tracks, and destroys armored, mobile targets. The Pre-Planned DESCRIPTION: The BAT submunition is an anti-armor, top attack submunition with acoustic and infrared (IR) seekers working in tandem for autonomous Product Improvement (P3I) BAT uses millimeter wave, infrared, and acoustic seekers in tandem to attack additional target arrays which include cold stationary or dug-in targets and surface-to-surface missile transporter erector launchers.

dispensed over numerous high-payoff targets to selectively attack and destroy individual targets. By utilizing acoustic technology, BAT has the advantage JUSTIFICATION: The BAT submunitions will be carried deep into enemy territory by the Army Tactical Missile System (ATACMS) Block II. It will be of a large footprint which allows it to compensate for target location errors.

Missiles Cost Analysis		A. APPN / BUDGET ACTIVITY TITLE/NO MISSILE PROCUREMENT / 2	ET ACTIVIT PROCURI	NV BUDGET ACTIVITY TITLE/NO MISSILE PROCUREMENT / 2 / Other Missiles	er Missiles	B. WEAPON	DAT (CA6100)	A6100)		C. MANUFACTURER NAME Northrop Grumman Corp	0	D. DATE Febru	TE February 1997
Missiles	₽		FY 96			FV 97			EV OR			EV 00	
Cost Elements	CD	TotalCost	Oty	UnitCost	TotalCost	λίσ	UnitCost	TotalCost	Ąö	UnitCost	TotalCost	Qt St	UnitCost
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Missile Hardware- Recurring Prime Contract (Includes IPF) GFE								74188	305	243	82232	547	150
Flight Kits Engineering Services Engineering Change Orders (ECOs) Fielding								1496			4553 2646 7		
Subtotal Missile Hardware								75684			89438		
Procurement Support Project Management Admin Production Engineering Support Test and Evaluation Subtotal Procurement Support					•			2920 3819 2213 8952			3440 5189 2000 10629		
TOTAL MISSILE FLYAWAY								84636			100067		
Command & Launch Integration Command & Launch Integration Spt Subtotal C&L Integration													
Support Cost Missile Test Device ATMF Test and Support Equipment Subtotal Support Cost								572 572			70		
Less: Prior Year Adv Proc Net P-1 Full Funding Cost PLUS P-1 CY Adv. Proc.								85208			100137		
Other Non P-1 Costs Initial Spares MODS													
TOTAL								85208			100137		

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B. APPROPRIATION / BUDGET ACTIVITY					. P-1 ITEM N	C. P-1 ITEM NOMENCLATURE	, i	5	day 10	
	MISSILE PROCUREMENT / Other Missiles						BAT (CA6100)			
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BUDGET ITEM JUSTIFICATION SHEET P-1 ITEM NOMENCLATURE P-1 ITEM NOMENCLATURE MISSILE PROCUPEMENT /Modification of Missiles FY 1996 FY 1997 FY 1999 PY 1					DATE		
E PROCUREMENT / Modification of Missles FY 1996 FY 1997 FY 1998 0 0 0	BUDGET ITEM JUSTIFI	CATION SHE	ET			February 1997	
MISSILE PROCUREMENT / Modification of Missies			P-1 ITEM NOMENCLATURE				
FY 1996 FY 1997 FY 1998	OCUREMENT /Modification of Missies				PATRIOT MODS (C50700)	DS (C50700)	
O O O ALLENVIO		FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
	0 0	0	0	0	0	0	0
COST (in millions) 6.8 23.4 20.8 15.6		20.8	15.6	19.6	24.3	19.9	16.5

DESCRIPTION: The PATRIOT Weapon System Growth Program is in response to a Report of the Defense Science Board Task Force on PATRIOT Vulnerability (1978) (SECRET) and the Air Threat to Central Europe (1978-1988) ATCE-1988 (SECRET) dated 1 Aug 78, and was part of the Mid 1980 ASARC/DSARC process approving the initiation of PATRIOT production. JUSTIFICATION: The above funding is required to support the planned system Growth Program P3I, anticipated Materiel Changes which will add the following hardware enhancements/improvements to the PATRIOT Weapon System:

	BUDGET ITEM JUSTIFICATION SHEET	DATE
P-1 ITEM NOMENCLATURE PROCUREMENT /Modification of Missies		
		2-1 ITEM NOMENCLATURE
	MISSILE PROCUREMENT / Modification of Missies	PATRIOT MODS (C50700)

	MISSILE PROCUREMENT /Modification of Missies	cation of Missies				PATRIOT MODS (C50700)	020200)	
OSIP No.	Description							
Classification	All PYs	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
1-88-03-1224	BLOCK VII							
	10.2	4.0	0.4	0.0	0.0	0.0	0.0	0.0
1-88-03-1227	WEAPON CONTROL COMPUTER (WCC) UPGRADE	OL COMPUTER (WCC) UPGRADE					
	26.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1-92-03-1235	CDI PHASE I		AND THE PROPERTY OF THE PROPER					
	3.8	0.3	0.0	0.0	0.0	0.0	0.0	0.0
1-93-03-1237	COMMUNICATION ENHANCEMENTS	ENHANCEMENT						
	0.0	0.0	9.7	9.0	12.4	14.9	15.2	12.5
1-89-03-1230	BLOCK VIII (RAM MODS)	AODS)				of depth decision of the first property of t		
	0.0	0.0	4.6	9.9	7.2	9.4	4.7	4.0
1-95-03-1243	AIR CONDITIONER UPGRADE	NPGRADE						
	0.0	7.2	0.0	0.0	0.0	0.0	0.0	0.0
1-97-03-1244	INTEGRATED DIAGNOSTIC SUPPORT SYSTEM	SNOSTIC SUPPO	ORT SYSTEM					
	0.0	6.1	6.1	0.0	0.0	0.0	0.0	0.0
1-97-03-1245	GEM PLUS/MINUS				AND THE STATE OF T		And the second of the second o	
	0.0	5.8	0.0	0.0	0.0	0.0	0.0	0.0
Totals	70.0	23.4	20.8	15.6	19.6	24.3	19.9	16.5
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MOD	MODIFICATION INSTALLATION SUMMARY	VSTALL,	ATION S	UMMAR	<u>≻</u>		Date	February 1997	766
			(тоа, р	(TOA, Dollars in Millions)	Millions)	-			
	λđ								
System/Modification	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	TOTAL
PATRIOT MODS									
C50700	9			Ċ		Ċ	Ċ	c	Q C
BLOCK VIII	9.0	- 6	- 6	2 6		9 6	0.00	9 6	0.0 T
WEAPON CONTROL COMPOTER (WCC) OF GRADE	0.7			0.0	0.0	0.0	0.0	0.0	- 0.0
COMMUNICATION ENHANCEMENTS	0.0			0.8		1.3	4.	7	9.9
BLOCK VIII (RAM MODS)	0.0		0.4	9.0		0.0	4.0	0.3	3.3
AIR CONDITIONER UPGRADE	0.0			0.0		0.0	0.0	0.0	0.3
INTEGRATED DIAGNOSTIC SUPPORT SYSTEM	0.0	0.5		0.0		0.0	0.0	0.0	0.4
GEM PLUS/MINUS	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.5
Totals	10.4	1.2	1.6	1.4	1.8	2.2	1.8	4.1	21.8

	INDIVIDUAL MODIFICATION	Date February 1997
MODIFICATION TITLE:	BLOCK VII 1-88-03-1224	
MODELS OF SYSTEMS AFFECTED:	Radar Set,ECS, ICC, LS, BME, BMG, CRG	
DESCRIPTION / JUSTIFICATION:		
This modification provides corrections to problems Materiel Change involve improvements to the Rada Battalion Maintenance Equipment/Group, Commur installation of retrofit modification kits to bring fielde	This modification provides corrections to problems in the field which have been identified and incorporated into ECPs. Corrections included in this Materiel Change involve improvements to the Radar Set, Engagement Control Station, Information and Coordination Central, Launching Station, Battalion Maintenance Equipment/Group, Communications Relay Group and ISE/PFASC Shop Sets. The purpose of this MC is the acquisition and installation of retrofit modification kits to bring fielded PATRIOT hardware up to the production baseline configuration.	in the field which have been identified and incorporated into ECPs. Corrections included in this ar Set, Engagement Control Station, Information and Coordination Central, Launching Station, incations Relay Group and ISE/PFASC Shop Sets. The purpose of this MC is the acquisition and bathor hardware up to the production baseline configuration.
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:	VELOPMENT MILESTONES: PLANNED	ACCOMPLISHED
Major Milestones not applicable.	plicable.	

					INDI	/IDUAL	INDIVIDUAL MODIFICATION	ATION							Date		February 1997	y 1997	
MODIFICATION TITLE (Cont):		BL	BLOCK VII 1-6	/11 1-8	38-03-1224	224													
FINANCIAL PLAN: (\$ in Millions)	177 4000	آ																	
	and Prior	_ <u> </u>	FY 1997	97	FY 1998	98	FY 1999	-	FY 2000	FY	FY 2001	FY 2	FY 2002	FY 2003	600	TC		TOTAL	اِ
	Qty	\vdash	Qţ	€9	Ωty	€9	Oty \$	Q Qty	\$	ğ	↔	Oty	ક્ક	Qty	49	Οţλ	\$	οţ	s)
RDT&E	None																		
PROCUREMENT							-	_											
Kit Quantity																		C	0
Installation Kits	253	9,9	9	9.0	6	0.3												332	10.8
Installation Kits Nonrecurring																			
Equipment						_										-			
Equipment Nonrecurring																			
Engineering Change Orders									<u> </u>										
Data					-														
Training Equipment																			
Support Equipment																			
Other		_					· · · · · · · · · · · · · · · · · · ·		_										
Interim Contractor Support																			
	-																		
Installation of Hardware																			
FY 1996 & Prior Eqpt Kits	253	3.6																253	3.6
FY 1997 Eqpt Kits			9	0.1														09	0.1
FY 1998 Eqpt Kits					19	0.1												19	0.1
FY 1999 Eqpt Kits																			
FY 2000 Eqpt kits			-																
FY 2001 Eqpt kits														-			-		
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FY 2003 Eqpt kits																			
(FY(TC) Eqpt (xx kits)				1				+	+	4	-				Ť	T	Ī		1
Total Installation Cost	253	3.6	09	0.1	19	0.1		$\frac{1}{2}$			_							332	3.8
Total Procurement Cost		10.2		4.0	\exists	4.0	_	-	_	_									14.6
METHOD OF IMPLEMENTATION Contractor Field Teams	N Contrac	ctor Fie	ld Tea	ő	ADMINI	STRAT	ADMINISTRATIVE LEADTIME:	TIME:	6 Dec 97	Months 97	su	PRODUC EV 1999	UCTION .	PRODUCTION LEADTIME: EV 1999:	IIME:	9	Months		
Contract Dates: Delivery Date:	<u>.</u>	FY 1997:		Jun 97			FY 1998:		Jun 98	38		FY 1999:							
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8 Prior 197 28 28 15 15 15 15 15 15 15 15 15 15 15 15 15		& Prior		ત્ય	ଚା	41	⊷ i	αI	m	41	H	2 I	(C)	41	H	C4	വ	41	Ŧ			41			Total
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	INDIVIDUAL MODIFICATION	Date	February 1997
MODIFICATION TITLE:	WEAPON CONTROL COMPUTER (WCC) UPGRADE 1-88-03-1227		
MODELS OF SYSTEMS AFFECTED:	ECS & ICC		
DESCRIPTION / JUSTIFICATION:			

expanded WCC will be implemented by the replacement of the current Recovery Storage Unit (RSU) and the Mass Storage Unit (MSU) with an Information and Coordination Central (ICC) will be replaced by the VHSIC WCC. Peripheral devices which will permit the full utilization of the Change will increase central processing speed throughout and available memory. Current RAM hardware usage is at 95% eliminating future optical disk. This MC requires WCC software enhancements to be blocked with others in a Post Deployment Build 4(PDB-4). The Materiel replacement with a Very High Speed Integrated Circuit (VHSIC) WCC. The current WCC in the Engagement Control Station (ECS) and This task's objective is to increase (by four times) the speed and memory size of the current Weapon Control Computer (WCC) though growth. VHSIC technology and expanded memory will accomodate future throughput and growth.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:	O DINNE	ACCOMPLISHED
Preliminary Design Review:	4QFY90	4QFY90
Critical Design Review:	2QFY91	2QFY90
Contractor Test and Evaluation:	1QFY92	1QFY92
Development Test and Evaluation:	2QFY92	3QFY92
Inital Operational Test and Evaluation:	N/A	N/A
IPR Production Decision	N/A	N/A
TDP Available:	N/A	N/A

MODIFICATION TITLE (Cont): Financial Financia	WEAPON CONTROL COMPUTER (WCC) UPGRADE 1-88-03-1227	ONTRO	CON	PUTER	(WCC)	UPGF	ADE .	4 00 0							
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lation Kits lation Kits Nonrecurring ment ment Nonrecurring eering Change Orders ng Equipment															
Installation Kits Nonrecurring Equipment Equipment Nonrecurring Engineering Change Orders Data Training Equipment														110	49.9
Equipment Equipment Nonrecurring Engineering Change Orders Data Training Equipment															
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Installation of Hardware															
FY 1996 & Prior Eqpt Kits 110 6.1														110	6.1
FY 1997 Eqpt Kits															
FY 1998 Eqpt Kits										•					
FY 1999 Eqpt Kits	· · · -			-											
FY 2000 Eqpt kits	•														
FY 2001 Eqpt kits															
FY 2002 Eqpt kits															
FY 2003 Eqpt kits	-				_								,		
(FY(TC) Eqpt (xx kits)											_				
Total Installation Cost 6.1														110	6.1
Total Procurement Cost 56.0															56.0
METHOD OF IMPLEMENTATION Depot Teams		ADMINIS	TRATIV	ADMINISTRATIVE LEADTIME:	Ξ Ü	9	Months		PRODU	CTION	PRODUCTION LEADTIME:	18	Months		
Contract Dates: FY 1997:	٠.		Ĺ	FY 1998:					FY 1999:						
Delivery Date: FY 1997:	,.		Ĺ	FY 1998:					FY 1999:	: :					

Installation Schedule: WEAPON CONTROL COMPUTER (WCC) UPGRADE 1-88-03-1227 FY 1996 FY 1997 FY 1998	ule: W FY 1996	VEAP	ONO F	CONT FY 1997	ROL	CON	PUT	ER (W(FY 1998	(SC.)	UPG	RADE	E 1-88-C FY 1999	-03-12	27		FY 2000	Date	00	- 1	February 1997 FY 2001	y 1997					
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FY 1997	•																									
FY 1998																										
FY 1999																										
Outputs																									•	
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FY 1997																										
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FY 1999																										
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Outputs																										
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INDIVIDUAL MODIFICATION	NC	Date February 1997
MODIFICATION TITLE: CDI PHASE I 1-92-03-1235		
MODELS OF SYSTEMS AFFECTED: RADAR SET		
DESCRIPTION / JUSTIFICATION:		
Provides improvements to the identification process and enhances air defense effectiveness by reducing the potential for fratricide and providing better battlefield management of missile expenditures.	nse effectiveness by reducing tl	he potential for fratricide and providin
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: Development effort completed.	t completed.	
Preliminary Design Review:	AQFY90	ACCOMPLISHED 1QFY91
Critical Design Review:	3QFY91	4QFY91
Contractor Test and Evaluation:	2QFY92	3QFY92
Development Test and Evaluation:	2QFY92	1QFY94
Inital Operational Test and Evaluation:	N/A	N/A
IPR Production Decision	N/A	N/A
TDP Available:	N/A	N/A

					INDI	/IDUAL	INDIVIDUAL MODIFICATION	CATION							De	Date		February 1997	7 1997	
MODIFICATION TITLE (Cont):		go	CDI PHASE I		-92-00	1-92-03-1235														
FINANCIAL PLAN: (\$ in Millions)		Г				•														
	FY 1996 and Prior		FY 1997	7	FY 1998	86	FY 1999	H	FY 2000	-	FY 2001	-	FY 200	22	FY 2003	33	10		TOTAL	1
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RDT&E	_	9							-											14.6
PROCUREMENT																				
Kit Quantity		_																		1
Installation Kits	19	3.1	2	0.2															2	9.3 9.3
Installation Kits Nonrecurring																	-			
Equipment	-																			
Equipment Nonrecurring												-				·				
Engineering Change Orders														-						
Data			-		-															
Training Equipment											-			•	-					
Support Equipment																				
Other																				
Interim Contractor Support																				
Installation of Hardware												-								
FY 1996 & Prior Eqpt Kits	19	0.7																	19	0.7
FY 1997 Eqpt Kits			0	0.1															N	0.1
FY 1998 Eqpt Kits																				
FY 1999 Eqpt Kits												-				-				
FY 2000 Eqpt kits																				
FY 2001 Eqpt kits																	•			
FY 2002 Eqpt kits										_								-		
FY 2003 Eqpt kits		-								<u>.</u>										
(FY(TC) Eqpt (xx kits)										-										
Total Installation Cost	19	0.7	2	0.1				\dashv	\dashv			\dashv	1	1	1	1	1		21	0.8
Total Procurement Cost		3.8		0.3					\dashv	-	\dashv			_		1				4.1
METHOD OF IMPLEMENTATION Contractor Mod Team	Contract	or Mod	Team		DMINI	STRAT	ADMINISTRATIVE LEADTIME:	OTIME:		ğ 9	Months	a . 1	RODUC	TION	PRODUCTION LEADTIME:	三	9	Months		
Contract Dates:	<u>}</u> }	FY 1997:	< 2	Nov 96			FY 1998: EV 1009:					цú	FY 1999: EV 1990:							
Delivery Date:		. 1887.	1	a 6			1990.					-	200							

Installation Schedule: CDI PHASE I 1-92-03-1235	nle: CI	J P	IASE	1-9	2-03-1	1235										Da	Date		Februa	February 1997						
	FY 1996		Ŧ	FY 1997			Ŧ	FY 1998			FY 1999	666			FY 2000	0		_	FY 2001	_						
	& Prior	Н	C)I	က	41	-	CI	က	41	-1	N	ကျ	41	-1	C4	ල ₁	41	-1	CI CN	(S)					Total	ā
Inputs																										
FY 1996 & Prior	14	2	с																							19
FY 1997				-4	2																					2
FY 1998																										
FY 1999																										
Outputs																										
Sinding.	,	•	(
FY 1996 & Prior	5	_	N		n																					6
FY 1997						7																				N
FY 1998																										
FY 1999																										
			FY 2000	00			FY 2001	50			FY 2002	2		ш	FY 2003			Ŧ	FY 2004			FΥ	FY 2005			
		-	2		3	4	-	2 3	4	-	8	က	4	-	2	က	4	-	2	ဗ	4	_	2	ဗ	4 Total	평
Inputs																										
FY 2000																										_
FY 2001																										
FY 2002																										
FY 2003																										
Outputs																										
FY 2000																										
FY 2001																										
FY 2002																										
FY 2003																										
Remarks:																										Т

	INDIVIDUAL MODIFICATION	Date	February 1997
MODIFICATION TITLE:	COMMUNICATION ENHANCEMENTS 1-93-03-1237		
MODELS OF SYSTEMS AFFECTED: Fire Unit	Fire Unit		
DESCRIPTION / JUSTIFICATION:			
			for the state of t

fire unit voice and data interface into the Army Common User System (ACUS); high speed filters to permit access into long haul data transmission operations. It provides additional interfaces for told-in intelligence source; CADCI to provide automated switching within the battalion and permits Communications Enhancements focuses on intra-battalion communications and improved interoperability at the fire unit level for contingency means; and, a fiber optic port to provide a local area network (LAN) interface with the battery command post. international agreements requirements.

This is a subset of the full Remote Launch/Communication Enhancement Upgrade Program.

was initiated in FY95 and is ongoing	ACCOMPLISHED	3QFY96	4QFY96	
MILESTONES: Communication Upgrade Development Program was initiated in FY95 and is ongoing	PLANNED	4QFY95	1QFY96	N/A
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: COMP		Preliminary Design Review:	Critical Design Review:	TDP Available:

				IQNI	VIDUAL	INDIVIDUAL MODIFICATION	-ICATIC	Z							Date		Febru	February 1997	
MODIFICATION TITLE (Cont):	0	OMM	UNICA	COMMUNICATION ENHANCEMENTS 1-93-03-1237	NHA NHA	NCEM	ENTS	1-93-	03-12	37									
FINANCIAL PLAN: (\$ in Millions)	EV 4006													V	A	7			
	and Prior	F	FY 1997	FY 1998	866	FY 1999	660	FY 2000	000	FY 2001	100	FY 2002	2002	FY 2003	003	-	70	TOTAL	Z-
	Oty \$	Qty	49	ģ	\$	δţ	69	Oty Oty	69	O.	8	Š Š	69	Q Ş	ક્ક	δţ	S	Qfy	69
RDT&E	9.4		6.1																15.5
PROCUREMENT																			
Kit Quantity																			
Installation Kits				4	8.8	14	8.2	9	11.3	7	13.6	8	13.8	4	11.4			53	67.1
Installation Kits Nonrecurring									•										
Equipment																			
Equipment Nonrecurring										-									
Engineering Change Orders																	-		
Data																			
Training Equipment	•																		
Support Equipment																			
Other																			
Interim Contractor Support																			
Installation of Hardware																			
FY 1996 & Prior Eqpt Kits					,						-			-			,		
FY 1997 Eqpt Kits																			
FY 1998 Eqpt Kits				4	6.0													4	0.9
FY 1999 Eqpt Kits						4	8.0											4	0.8
FY 2000 Eqpt kits			•					9	1:1									9	1.1
FY 2001 Eqpt kits							_			7	6.1							7	1.3
FY 2002 Eqpt kits							-					80	4.					- 00	1.4
FY 2003 Eqpt kits														4	1.			4	7
(FY(TC) Eqpt (xx kits)																			
Total Installation Cost				14	6.0	14	0.8	9	=	7	1.3	8	4.4	4	=			53	9.9
Total Procurement Cost					9.7		9.0		12.4		14.9		15.2		12.5				73.7
METHOD OF IMPLEMENTATION Contractor Mod Team	Contractor N	fod Tea	E	ADMINISTRATIVE LEADTIME:	STRATI	VE LEA	DTIME		<u>ہ</u>	Months	_	RODU	CTION	PRODUCTION LEADTIME:	IME	48	Months		
Contract Dates:	FY 1997: FY 1997:				ш. ш.	FY 1998: FY 1998:		MAR 98 SEP 99				FY 1999: FY 1999:		MAR 99 SEP 00					
				l		2001		8		١		200		200	ı		ı		

Installation Schedule:	dule: COMIN	COMMUNICATION ENHANCEMENTS 1-93-03-1237	ONE	NHAN	CEME	VTS 1-	93-03-	1237						Date		F.	February 1997	1997				
	FY 1996	FY 1997	7		7	FY 1998			FY 1999	6		ш	FY 2000			Ŧ	FY 2001					
	& Prior 1	CII	8	-	αi	(C)	41	1	C)	හ 41	4 1	⊘ 1	m	41		CI	m	41				Total
Inputs																						
FY 1996 & Prior																						
FY 1997																						
FY 1998											4	4	3	ဗ								14
FY 1999															4	4	3 3					•
Outputs																						
FY 1996 & Prior																						
FY 1997																						
FY 1998												4	4	ဗ	ဗ							14
FY 1999																4	4	3				
		FY 2000			FY 2001	10		Œ	FY 2002			¥	FY 2003			FY 2004	904			FY 2005	10	
		1 2	က	4	2	က	4	-	8	က	4	-		ဗ	4	-		3 4	-	8	8	4 Total
Inputs																						
FY 2000							23	2	-	-												
FY 2001											7	73	8	_								
FY 2002															2	23	0	N				
FY 2003																		0	N			
Outputs																						
FY 2000								8	7	-	-											
FY 2001												7	7	2	_							
FY 2002																7	7	2				
FY 2003																			2	2		
Remarks:																						
														l								

				INDI	/IDUAL	MODIF	INDIVIDUAL MODIFICATION	z							Date		Februa	February 1997	
MODIFICATION TITLE (Cont):	æ	BLOCK VIII (R	VIII (F	AM MC	(SGC	1-89-0	AM MODS) 1-89-03-1230												
FINANCIAL PLAN: (\$ in Millions)	FV 1996																		
	and Prior	FY 1997	197	FY 1998	86	FY 1999	H	FY 2000	Н	FY 2001	10	FY 2002	72	FY 2003	903	TC	1 1	TOTAL	
	Qty \$	Qty	æ	Qty	€9	Qty	89	Q Çt	€9	Q Çî	69	Qţ	(S)	Oty	\$	Oty	€	Qt	€
RDT&E																			
PROCUREMENT																			
Kit Quantity																			
Installation Kits				127	4.2	211	0.9	369	6.5	411	8.5	225	6.4	200	3.7			1543	33.2
Installation Kits Nonrecurring																			
Equipment																			
Equipment Nonrecurring																			
Engineering Change Orders					_					-									
Data							-				_								
Training Equipment			•							_									
Support Equipment					_											•			
Othor													_						
Corner Contractor Support																			
interint contractor support													-						
Installation of Hardware									-			-							
EV 1006 & Drior Eant Kite										-	_						-		
- 1000 P - 1																			
FY 1997 Eqpt Nits				7														404	Č
FY 1998 Eqpt Kits				/7	4.	-			-					_	-			12.0	i c
FY 1999 Eqpt Kits						- 12	9.0								-			7.17	0.
FY 2000 Eqpt kits								369	0.7									369	0.7
FY 2001 Eqpt kits										411	6.0				-			411	0.0
FY 2002 Eqpt kits												225	9.0					225	0.4
FY 2003 Eqpt kits						_								200	0.3			200	0.3
(FY(TC) Eqpt (xx kits)									_										
Total Installation Cost			П	127	0.4	211	9.0	369	0.7	411	6.0	225	0.4	200	0.3			1543	3.3
Total Procurement Cost					4.6		9.9		7.2		9.4		4.7		4.0	-			36.5
METHOD OF IMPLEMENTATION Contractor Field Teams	Contractor	Field Tea		ADMINISTRATIVE LEADTIME:	STRAT	VELEA	DTIME:	. !	9	Months	44.1	PRODUCTION LEADTIME:	NOIT	EADT	ME	9	Months		
Contract Dates:	FY 1997: FV 1997:	97: 37:			_ 11	FY 1998: FY 1998:		DEC 97			ı u	FY 1999: FY 1999:		UEC 98					
Delivery Date.													ı			١	١	l	1

Installation Schedule: BLOCK VIII (RAM MODS) 1-89-03-1230	fule: B	LOC	K V≡	(RAI	A MO	08) 1	-89-0	3-123	0								Date		Feb	February 1997	1997	!				
	FY 1996	,,	Ŧ	FY 1997			Ĺ	FY 1998			Ĺ	FY 1999			Ŧ	FY 2000			FY	FY 2001						
	& Prior	+1	2	O	41	-	CI	(C)	41	-	Οİ	വ	41	-	CU	വ	41	-1	CI	m	41				<u> </u>	Total
Inputs		٠																								
FY 1996 & Prior																										
FY 1997																										
FY 1998								-	18 1	19 2	22 2	22 2	23 23	က္သ												127
FY 1999												-			11 12	12 41	14	42	42							211
Outputs																										
FY 1996 & Prior																										
FY 1997																										
FY 1998									-	18	19 2	22 2	22 23	23	9											127
FY 1999													11			11 12	41	4	42	42						211
			FY 2000	200			FΥΣ	FY 2001			FY 2002	200			FY 2003	600			FY 2004	75		ш.	FY 2005			
			-	2	e e	4	-	8	က	4	_	2	ີ ຕ	4	-	2 3	. 4	-	2	ო	4	-	Ø	က	4 I	Total
Inputs																										
FY 2000				-	19 1	19 1	19 2	20 7				က														369
FY 2001								N	21 2	21 2	22 22		80 8	80 80	0 85	ıo										411
FY 2002												Ø		0 20		35	35	35	4							225
FY 2003																20) 50	20	20							200
Outputs																										
FY 2000					÷	19 1	19	19 2	20 7				73													369
FY 2001									21		21 22		22 80	0 80	0 80	0 85										411
FY 2002													20				35	35	35	40						225
FY 2003																	20	50	20	50						200
Remarks:																		1								

					INDI	VIDUAL	INDIVIDUAL MODIFICATION	CATIO	7						٥	Date		Februs	February 1997	
MODIFICATION TITLE (Cont):		Air	Cond	itioner	Upgra	ade 1-	Air Conditioner Upgrade 1-95-03-1243	1243												
FINANCIAL PLAN: (\$ in Millions)	2000	Į,						,					,							
	and Prior	ة و	FY 1997	46	FY 1998	98	FY 1999	62	FY 2000	00	FY 2001	10	FY 2002	72	FY 2003	60	T _C		TOTAL	Ā
2010	Ofty.	49	λίο	€9	Q Ş	89	δ	s	δţ	€	λÔ	69	Of	\forall	δίς	\$	ð	89	Otty	€9
PROCUREMENT												 ,								
Kit Quantity							***	•							-					
Installation Kits			294	6.9															294	9
Installation Kits Nonrecurring													-						2)
Equipment									-											
Equipment Nonrecurring						,,,,,														
Engineering Change Orders	-									-	******							-		
Data																				
Training Equipment																				
Support Equipment	_									•										
Other				•																
Interim Contractor Support																				
															Ţ					
Installation of Hardware		-																		
EV 1006 & Drior East Kits									_		-					-				
TY 1990 & PIIOT EQUI NIIS				1					***					_						
FY 1997 Eqpt Kits			294	0.3															294	0.3
FT 1998 Eqpt Kits												<u> </u>		-						
FY 1999 Eqpt Kits														-						
FY 2000 Eqpt kits			-	:			-		-											
FY 2001 Eqpt kits									•											
FY 2002 Eqpt kits						-														
FY 2003 Eqpt kits					-															
(FY(TC) Eqpt (xx kits)														-						
Total Installation Cost			294	0.3	-	H			-	\vdash				\vdash		T	T	T	294	0.3
Total Procurement Cost		-		7.2		-				-		\vdash	-			T				7.2
METHOD OF IMPLEMENTATION Contractor Mod Team	Contracto	r Mod	Team	₹	DMINIS	TRATI	ADMINISTRATIVE LEADTIME:	TIME		9 W	Months	ā	PRODUCTION LEADTIME:	TION	EADTIN	ij	9	Months		
Contract Dates:	F	FY 1997:	0	OCT 96		Ĺ	FY 1998:					Ĺ	FY 1999:							
Delivery Date:	F	FY 1997:	¥	APR 97		Ĺ	FY 1998:					Ĺ.	FY 1999:							

Installation Schedule: Air Conditioner Upgrade 1-95-03-1243	Conditioner	Dan	rade	1-95-(33-12	<u>ε</u>								۵	Date		Febru	February 1997	24				
FY 1996	FY 1997	26			FY 1998	866			FY 1999	66			FY 2000				FY 2001	=					
& Prior	1 2	ෆ	41	-1	CVI	വ	41	Ŧ	2 1	ro)	41	+1	CII	ଚା	41	ᆏ	2 1	ଚ୍ଚା	41			• •	Total
Inputs																							
FY 1996 & Prior																							
FY 1997		147	147																				294
FY 1998																							
FY 1999																							
Outputs																							
FY 1996 & Prior																							
FY 1997				147	147																		294
FY 1998																							
FY 1999																							
	2000				7			L	2000	_		ú	2000			Ú	V 2004			100c VI			
	1 2 2	က	4	-	2	-	4	-	2 2	ი	4	-	2	က	4	-	2	က	4	1 2 2	ო	4	Total
Inputs																							
FY 2000																							
FY 2001																							
FY 2002																							-
FY 2003																							
Outputs																							
FY 2000																							
FY 2001																							
FY 2002																							
FY 2003																							
Remarks:																							

				NDI	/IDUAL	MODIF	INDIVIDUAL MODIFICATION						l	Date		Februa	February 1997	
MODIFICATION TITLE (Cont):		INTEGRATED	ATED	DIAG	NOSTI	C SUF	DIAGNOSTIC SUPPORT SYSTEM 1-97-03-1244	SYST	≣M 1-9	7-03-1	244							
FINANCIAL PLAN: (\$ in Millions)	FV 1996	_																-
	and Prior	FY 1997	166	FY 1998	88	FY 1999	Н	200	Н	200	F	FY 2002	FY 2	FY 2003	TC	1 1	TOTAL	
	Qty \$	Öţ	ક્ક	Qţ	€9	Qfy	\$ Oty	ty \$	Qty	\$	Q.	€	Δĺζ	G	ð	69	ð	€
RDT&E PROCUREMENT Kit Quantity Installation Kits Installation Kits Equipment Equipment Equipment Nonrecurring Engineering Change Orders Data Training Equipment Other Installation of Hardware FY 1996 & Prior Eqpt Kits FY 1999 Eqpt Kits FY 1999 Eqpt Kits FY 1999 Eqpt Kits FY 2000 Eqpt Kits FY 2000 Eqpt Kits FY 2000 Eqpt Kits FY 2000 Eqpt Kits FY 2000 Eqpt Kits FY 2000 Eqpt Kits FY 2000 Eqpt Kits FY 2000 Eqpt Kits FY 2000 Eqpt Kits FY 2000 Eqpt Kits FY 2000 Eqpt Kits FY 2000 Eqpt Kits FY 2000 Eqpt Kits FY 2000 Eqpt Kits FY 2000 Eqpt Kits		2	6.0	2	0.2											•	7 2	11.8
Total Installation Cost		7	0.2	7	0.2	-	_				_						14	0.4
Total Procurement Cost			6.1		6.1													12.2
METHOD OF IMPLEMENTATION Contractor Mod Team	√ Contractor ∧	Aod Tean		ADMINIS	STRATI	ADMINISTRATIVE LEADTIME:	DTIME:	ဇ	Months	ths	PRO	DUCTIO	PRODUCTION LEADTIME:	TIME:	6	Months		
Contract Dates: Delivery Date:	FY 1997: FY 1997:	397: 197:	Feb 97 Oct 97			FY 1998: FY 1998:		Feb 98 Oct 98			FY 1999: FY 1999:	999: 999:						

Installation Schedule: INTEGRATED DIAGNOSTIC SUPPORT	INI :elul	EGRATEL	DIAG	SONE	TIC SL	JPPOF	₹ SY	STEM	SYSTEM 1-97-03-1244	33-124	4			٥	Date		Febru	February 1997					
	FY 1996	FY 1997	266			FY 1998			F	FY 1999			FY 2000	00			FY 2001	Ξ					
	& Prior	1 2	ю	41	-1	2	41	-1	αı	ଠା	41	+1	CM.	က	41	-	CII		41				Total
Inputs																							
FY 1996 & Prior																						٠	
FY 1997					7																		7
FY 1998									7												٠		. /
FY 1999																							•
Outputs																							
FY 1996 & Prior																							
FY 1997						7																	7
FY 1998									7														
FY 1999																							•
		F			7	FY 2001			FY 2002			IL.	FY 2003			ÍL	FY 2004			FY 2005	ω		
		2	m	4	-	7	m	4	2	က	4	-	7	ო	4	-	7	က	4	1 2	က	4 Total	otal
Inputs																							
FY 2000																							
FY 2001																							
FY 2002																							
FY 2003																							
Outputs																							
FY 2000																							
FY 2001																							
FY 2002																							
FY 2003																							
Remarks:																							

				IND	IVIDUAL	INDIVIDUAL MODIFICATION	SATION							Date		Februe	February 1997	
MODIFICATION TITLE (Cont):		GEM PLUS/M	N/S/I	SUNII	1-97-0	INUS 1-97-03-1245												
FINANCIAL PLAN: (\$ in Millions)																		
	FY 1996 and Prior	À	FY 1997	FΥ	1998	FY 1999	F	FY 2000	FV	FV 2001	FV	FY 2002	EV 2003	503	F		TOTAL	I
	Oty \$	è	8	Ò	8	of O		\$ ^	ð	8	O	49	Ž 0	8	2 ≥	69	20	1 49
RDT&E	-					-	╁	\vdash										·
PROCUREMENT																		
Kit Quantity							-	,										
Installation Kits		75	5.3														75	5.3
Installation Kits Nonrecurring													-		_			
Equipment																		
Equipment Nonrecurring																		
Engineering Change Orders																		
Data															-			
Training Equipment																		
Support Equipment																		
Other																		
Interim Contractor Support																		
							_									-		
Installation of Hardward								-										
Installation of Haldwale																		
FY 1996 & Prior Eqpt Kits	-															,		
FY 1997 Eqpt Kits		75	0.5														75	0.5
FY 1998 Eqpt Kits														-				
FY 1999 Eqpt Kits																		
FY 2000 Eqpt Kits																		
FY 2001 Eqpt Kits						-												
FY 2002 Eqpt Kits																		
FY 2003 Eqpt Kits				***														
(FY(TC) Eqpt (xx kits)																		
Total Installation Cost		75	0.5														75	0.5
Total Procurement Cost			5.8															5.8
METHOD OF IMPLEMENTATION Contractor Mod Team	Contractor M	od Tean		ADMIN	STRATI	ADMINISTRATIVE LEADTIME:	TIME:	9	Months	s	PRODL	CTION	PRODUCTION LEADTIME:	ME	18 A	Months		
Contract Dates:	FY 1997:	37:	Jan 99			FY 1998:					FY 1999:	÷.						
Delivery Date:	FY 1997:	37:	Jul 97			FY 1998:					FY 1999:	3:						

Installation Schedule: GEM PLUS/MINUS 1-97-03-1245	MINUS	1-97-0	3-124									Date			February 1997	1997					
	FY 1997		ш	FY 1998			FY 1999	666			FY 2000	_		Œ	FY 2001						
& Prior 1 2	ଜା	41	1 2	വ	41	ᅱ	01	ମଧ	41	-	SI (S)	41	-1	C I	ଠା	41				H	Total
Inputs																					
FY 1996 & Prior																					
FY 1997							15	8	20	20											75
FY 1998																					
FY 1999																					-
Outputs																					
FY 1996 & Prior																					
FY 1997								15	20	50	50										75
FY 1998																					
FY 1999																					
FY	FY 2000		Ŧ	FY 2001			FY 2002	cv.		Œ	FY 2003			FΥ	FY 2004			FY 2005			
-	2 3	4	-	N	3 4	•	N	က	4	-	8	က	4	•	2	3 4	-	7	က	4 Total	otal
Inputs																					
FY 2000																					
FY 2001																					
FY 2002																					
FY 2003																					
Outputs																					
FY 2000																					
FY 2001																					
FY 2002																					
FY 2003								7				ļ									
Remarks:																					
																		į			

						DATE		
	BUC	BUDGET ITEM JUSTIFICATION SHEET	TIFICATION SH	ЕЕТ			February 1997	
APPROPRIATION / BUDGET ACTIVITY	rivity			P-1 ITEM NOMENCLATURE	3			
2	MISSILE PROCUREMENT /Modification of Missies	Modification of Missies				STINGER MO	STINGER MODS (C20000)	
	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
QUANTITY	0	0	0	0	0	0	0	0
COST (in millions)	11.3	36.9	12.4	14.4	24.1	34.5	57.0	58.7

DESCRIPTION

moving, employing advanced counter-measures, or operating at night. These STINGER Block I Upgrade modifications maintain compatibility with all current and planned and launch platforms including Air-To-Air STINGER, AVENGER, and the gripstock used in shoulder fired applications. STINGER Block I Upgrades - Hardware and software modifications to the STINGER RMP Missile System improves performance against targets which are slow

gripstocks new EEPROMS must be procured and installed in existing, fielded gripstocks. For Air-to-Air Stinger, Bradley Linebacker, and Avenger, new circuit card STINGER Block I Platform Mods - In order to take advantage of the Block I missile's improved capability, each firing platform must be modified. assemblies must be procured and installed in each systems Interface Electronics Assembly.

LINEBACKER fielding maximizes the utility of the FAADS C2I Kit and a Bradley Fighting Vehicle-Operation Desert Storm Kit which are being fielded separately by Bradiey LINEBACKER (formerly Bradley STINGER Fightling Vehicle - Enhanced (BSFV-E)) - The Bradley LINEBACKER is an air defense system based upon procurement to upgrade the existing BSFV-MUA with the addition of Bradley LINEBACKER modification kit. The kit includes an integrated, externally mounted minimal upgrades to the currently fielded Bradley Stinger Fighting Vehicle-Manpads Under Armor (BSFV-MUA). The Bradley LINEBACKER provides heavy maneuver forces with dedicated air defense against a variety of threat platforms. The Bradley LINEBACKER is a Non-Developmental Item rapid acquisition Standard Vehicle Mounted Launcher with a modified fire control. It fires up to four Stinger missiles while the crew remains under armor protection. CECOM and TACOM.

JUSTIFICATION

materiel change was developed to correct these deficiencies. This materiel change was recommended as the near term solution by the Air-to-Air Missile General and night time engagements. There is also a safety deficiency whereby aviation platforms must super-elevate to fire the missile. The STINGER Block I Upgrade STINGER Block I Upgrades - The STINGER-RMP Missile is currently deficient in engagements against head/tail-on and slow moving targets, counter-measures, Officer's Steering Committee.

STINGER BIOCK I Platform Mods - In order to take advantage of the Block I missile's improved capability, each firing platform must be modified. Without modifications, Block I missiles fired from these platforms will perform as Stinger-RMP missiles, negating the Block I missile improved performance.

current Army program. This materiel solution corrects major ADA deficiencies in survivability, fire control, target acquistion and identification, with a reduction in crew forces employing Ground Based Sensor data as provided through FAADS C2I. This modestly costed program provides more firepower for the money than any other Bradley LINEBACKER - The Warfighting Rapid Acquisition Panel approved the Bradley LINEBACKER as a rapid acquisition program on 26 January 95, which Document was approved and released by TRADOC. The Bradley LINEBACKER program leverages a portion of the fielded M2A2 Bradley Fighting Vehicle fleet, improves the employment of the approximately \$2 billion STINGER missile investment, and provides an armored Air Defense Artillery (ADA) fire unit with heavy provided a Milestone IIIa (ASARC) decision to enter limited production to support the Army's Force XXI initiatives. An abbreviated Operational Requirements size as a force savings

DATE	February 1997		STINGER MODS (C20000)
	BUDGET ITEM JUSTIFICATION SHEET	P-1 ITEM NOMENCLATURE	ation of Missies
	BUDGE	APPROPRIATION / BUDGET ACTIVITY	MISSILE PROCUREMENT /Modification of Mi

APPROPRIATION / BUDGET ACTIVITY	CTIVITY		P-1	P-1 ITEM NOMENCLATURE				
	MISSILE PROCUREMENT /Modification of Missies	cation of Missles				STINGER MODS (C20000)	(C20000)	
	1							
OSIP No.	Description							
Classification	All PYs	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
01-87-03-1510	STINGER Block I Upgrades	pgrades						
Operational	24.4	21.8	8.7	14.4	24.1	34.5	40.1	31.9
TBD	STINGER Platform Mods	Mods						
TBD	0.0	7.9	0.0	0.0	0.0	0.0	0.0	0.0
TBD	Bradley LINEBACKER	H						
TBD	6.3	7.1	3.7	0.0	0.0	0.0	16.9	26.9
1	1 0							
lotals	30.7	30.9	12.4	14.4	24.1	34.5	5/.0	28.7
								The second secon

MODIFICATION INSTALLATION SUMMARY Fabruary 1997	(TOA, Dollars in Millions)	λď	E	80	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0						
			System/Modification	STINGER MODS C20000	STINGER Block I Upgrades	STINGER Platform Mods	Bradley LINEBACKER	Totals				- Company		

	I A I CIXIONI	NOWINITAL MODIEICATION		-007
	ı	NOTION TO THE PROPERTY OF THE	Date	Feoruary 1997
MODIFICATION TITLE:	STINGER Block I Upgrades	OSIP # 01-87-03-1510		
MODELS OF SYSTEMS AFFECTED:	STINGER RMP Missile			
DESCRIPTION / JUSTIFICATION:				
The STINGER Block I Upgrade materiel change increase overall missile performance in certain er super-elevate. The engagement scenarios in w	le materiel change incorporates he mance in certain engagement sce ient scenarios in which missile pe	The STINGER Block I Upgrade materiel change incorporates hardware and software modifications to the STINGER-RMP missile system to increase overall missile performance in certain engagement scenarios and resolve a key aviation deficiency which requires aviation platforms to super-elevate. The engagement scenarios in which missile performance improves include head/tail-on and slow moving targets, counter-	STINGER-RMP missile syster icy which requires aviation platfand slow moving targets, count	m to fforms to iter-
measures, and night time enger launch platforms which includer recommended by the Air-to-Air	agements. These changes incluc e Air-to-Air STINGER, AVENGER, ir Missile General Officer's Steerin	measures, and night time engagements. These changes include hardware changes to the missile and software changes to the command and launch platforms which include Air-to-Air STINGER, AVENGER, and gripstocks used in shoulder-fired applications. This materiel change was recommended by the Air-to-Air Missile General Officer's Steering Committee as the near term solution to the STINGER-RMP deficiencies.	oftware changes to the comma plications. This materiel chang the STINGER-RMP deficiencie	and and ige was es.
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILEST	EVELOPMENT MILESTONES:			
		PLANNED	ACCOMPLISHED	
Begin development		3rd Qtr FY92	3rd Qtr FY92	
Production Qualification	ion	4th Qtr FY95	4th Qtr FY95	
Software Critical Design Review	ign Review	4th Qtr FY96	2nd Qtr FY96	
Software Performance Assessment	e Assessment	2nd Qir FY97	2nd Otr FY97	

	١				NON	/IDUAL	INDIVIDUAL MODIFICATION	ATION						ľ	Date		February 1997	y 1997	
MODIFICATION TITLE (Cont):		S	INGE	R Bloc	STINGER Block I Upgrades	grades		H dis	OSIP # 01-87-03-1510	3-1510									
FINANCIAL PLAN: (\$ in Millions)																			
	FY 1996 and Prior	96 rior	FY 1997	766	FY 1998	86	FY 1999	-	FY 2000	FY	FY 2001	FY 2002	005	FY 2003	903	10		TOTAL	AL.
	ofty	89	ð	69	Qty	\vdash	Oty		φ λ	Q.	s	Qty	\$	Qty	\$	Qty	\$	Qty	8
RDT&E		30.8		3.7	-			_											34.5
PROCUREMENT																			
Kit Quantity	1,850		1,300		471		906	1,6	1,665	1,658		1,664		1,228		476		11,218	
Installation Kits																	-		
Installation Kits Nonrecurring			_																
Equipment		24.4		21.8		8.7		14.4	24.1	_	34.5		40.1		31.9		17.6		217.5
Equipment Nonrecurring													-	•					
Engineering Change Orders						_								••					
Data															.,				
Training Equipment																	*****		
Support Equipment														-					
Other									-										
Interim Contractor Support										_									
Installation of Hardware		Instal	lation o	f Hardw	are cost	s are inc	luded in	Equipm	Installation of Hardware costs are included in Equipment above.										
FY 1996 & Prior Eqpt - Kits								_											
FY 1997 Eqpt Kits																			
FY 1998 Eqpt Kits			-																
FY 1999 Eqpt Kits	-						. =												
FY 2000 Eqpt kits																			
FY 2001 Eqpt kits																•			
FY 2002 Eqpt kits									_										
FY 2003 Eqpt kits																	V	Į.	
(FY(TC) Eqpt (xx kits)																			
Total Installation Cost							_												
Total Procurement Cost	1,850	24.4	1,300	21.8	471	8.7	906	14.4 1,6	1,665 24.1	1,658	34.5	1,664	40.1	1,228	31.9	476	17.6	11,218	217.5
			3			TOAT	ADMINISTRATIVE EAD TIME	TIME	c	Month	9		J. CITO	HANT GAR I MOITOI I GOOD	ÜMÜ		9	Aprofice of	
Contract Dates:		FY 1997:		2nd Q, FY97	37 37	- K	IVE LEAU FY 1998:	2nd C	2nd Q, FY98		<u>o</u>	FY 1999:	9: 2	2nd Q, FY99	11ME.			MOME	
Delivery Date:	_	FY 1997:		4th Q, FY98	æ	ட	FY 1998:	4th Q	4th Q, FY99			FY 1999:		4th Q, FY00	00				

	Total		1,850	1,300	471	906			7	069,1	1,300	1,300	1,300 1,300 174	1,300 1,300 471 906	•	6 4	6 4	6 4	4 H	6 4	4 H	4 H	4	4	4	4
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February 1997 Y 2001	m												1	227	27											
FY 2001	C 4													227 2	Ó	227 2 7 2004 2	227 2 7 2004 2	227 2 Y 2004 2	227 2 Y 2004 2	227 2 Y 2004 2	227 2 2 2 2 2 307 3	227 2 7 2004 2 307 3	227 2 7 2004 2 307 3	227 2 4 2004 2 307 3	227 2 7 2004 2 307 3	227 22 FY 2004 2 307 3
	-1					227								226												
Date	41					227						900														
FY 2000	വ					226					118	2			63	03 3				3	3	3 9	2 9	e - 9	3 46 146	. H6
Ā	СЦ					226					118				FY 2003	FY 20	FY 20	FY 20								
	-1				118						118					-	-	-	1 415							
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1510 FY 1999	വ				7 118					326					FY 2002	3				33	3 3 414	3 3 4 4 14	3002 3 414 414	3 3 4 1 4 4 1 4 4 1 4 1 4 1 7	3 3 1 414 1 414 1 417	3 3 4 4 14 4 4 17 5 5 4 1 7 5 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6
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/9-10	-			4 326						4 326						-	-	1 6 417								
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CS FY 1998	2 3			324 326					77 267						FY 2001	2001		**	2001	2001 2 3 6 41	2001	2001 3 3 6 41	2001 2 3 6 411	2001 2 3 6 411	2001 2 3 6 411	2001 3 6 411
	1			32					206 177						Ŧ	FY 2	7 2	ξ ₂ 4	₹ ₄	₹ 4 2 4	F 2 4	FY 41	F 2 4	₹ ² 4	F 2 4	F 2 4
graue	41		177 267						200 20							4	4	4	4	4	4	4	4	4	4	4
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FY 1996	& Prior		8						130																	
FY	90		ior						ior																	
FY 1996 FY 1997		Inputs	FY 1996 & Prior	FY 1997	FY 1998	FY 1999	Outnute	ulpuis	FY 1996 & Prior	FY 1997	FY 1998	EV 1000	600				puts	puts 7 2000	puts 7 2000 7 2001	puts 7 2000 7 2001 7 2002	puts / 2000 / 2001 / 2002 / 2003	Inputs FY 2000 FY 2001 FY 2002 FY 2003	Inputs FY 2000 FY 2001 FY 2003 FY 2003 FY 2003	Inputs FY 2000 FY 2001 FY 2002 FY 2003 FY 2003 FY 2000	Inputs FY 2000 FY 2001 FY 2002 FY 2003 FY 2003 FY 2000	Inputs FY 2000 FY 2001 FY 2002 FY 2003 FY 2000 FY 2000 FY 2000

	INDIVIDUAL MODIFICATION	iCATION	Date	February 1997
MODIFICATION TITLE:	STINGER Platform Mods	OSIP # TBD		
MODELS OF SYSTEMS AFFECTED:	Manpads, Avenger, Bradley Linebacker, OH-58D	backer, OH-58D		
DESCRIPTION / JUSTIFICATION:				
In order to take advantage of the electronically erasable program Stinger, Bradley Linebacker, ar Assembly. Without modificati improved performance.	In order to take advantage of the Block I missile's improved capability, each firing platform must be modified. For MANPADS gripstocks, new electronically erasable programmable read only memory (EEPROM) must be procured and installed in each signed gripstocks. For Air-to-Ai Stinger, Bradley Linebacker, and Avenger, new circuit card assemblies must be procured and installed in each system's Interface Electronics Assembly. Without modifications, Block I missiles fired from these platforms will perform as Stinger-RMP missiles, negating the Block I missile improved performance.	, each firing platform must be modif must be procured and installed in es ss must be procured and installed in slatforms will perform as Stinger-RN	fied. For MANPADS gripstocks xisting, fielded gripstocks. For n each system's Interface Electrd IP missiles, negating the Block I	ocks, new For Air-to-Air sctronics ock I missile
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:	VELOPMENT MILESTONES:	PLANNED	ACCOMPLISHED	
		Development has been completed.	en completed.	

					IND	IVIDUA	INDIVIDUAL MODIFICATION	FICATIO	z						Date		Februe	February 1997	
MODIFICATION TITLE (Cont):		S	STINGER Platf	R Plat	form Mods	fods		0	OSIP# 1	TBD									
FINANCIAL PLAN: (\$ in Millions)	FY 1996	966													11				
	and Prior	Prior	FY 1997	266	FY 1998	866	FY 1999	Н	200	Н	FY 2001	FY	FY 2002	FY 2003	003	TC		TOTAL	LAL
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RDI &E PROCI IREMENT																			
Kit Quantity	0		2.425			***************************************	•									C		2 425	
Installation Kits	,		ì								-)		i i	
Installation Kits Nonrecurring																			
Equipment	_	0.0		7.9													0.0		7.9
Equipment Nonrecurring																			
Engineering Change Orders																			
Data																			
Training Equipment																			
Support Equipment																			
Other																			
Interim Contractor Support																			
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Installation of Hardware			,																
FY 1996 & Prior Eqpt Kits																			
FY 1997 Eqpt Kits																			
FY 1998 Eqpt Kits																			
FY 1999 Eqpt Kits									-										
FY 2000 Eqpt Kits																			
FY 2001 Eqpt Kits																			
FY 2002 Eqpt Kits								_	_										
FY 2003 Eqpt Kits									- ,										
(FY(TC) Eqpt (xx kits)																			
Total Installation Cost										L									
Total Procurement Cost	0	0.0	2,425	7.9				H		H						0	0.0	2,425	7.9
METHOD OF IMPLEMENTATION od		EV 4007.		ADMIN Pad Ott EV97	ADMINI FV97	STRAT	ADMINISTRATIVE LEADTIME:	DTIME	e - c	Months	ths	PROF	OUCTION	PRODUCTION LEADTIME:	IME:		Months		
Contract Dates:		FY 1997: EV 1007:	: :	44 25 C 44 25 C 44	FY98	_ 14	FY 1996.		יים בי	not applicable	<u> </u>	FY 1999:		2 2	not applicable not applicable	aple			
comen's care.	-	00					000			abbuoda abbuoda					applic	able			

Installation Schoolule: OTINICED Diotform Mode		DSID # TBD	CaT t								Date		Feb	February 1997	26				
FY 1996 FY		FY 1998	98		-	FY 1999	_		Œ	FY 2000			FY 2001	001					
-	3 4 1	N	က	4	_	2	4	_	8	က	4	-	8	က	4				Total
Inputs																			
FY 1996 & Prior																			
FY 1997		900	009	9 009	625														2,425
FY 1998																			
FY 1999																			
Outputs																			
FY 1996 & Prior																			
FY 1997				9 009	9 009	600 625	ເດ												2,425
FY 1998																			
FY 1999																			
FY 2000	(FY 2001			Έ,	002		•	ξ,	003	•		FY 2004	4 6	•	•	FY 2005	<	Total
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Inputs																			
FY 2000																			
FY 2001																			
FY 2002																			
FY 2003																			
Outbuts																			
FY 2000																			
FY 2001																			
FY 2002																			
FY 2003																			
Remarks:																			
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	INDNI	INDIVIDUAL MODIFICATION		Date	February 1997
MODIFICATION TITLE:	Bradley LINEBACKER	OSIP # TBD			
MODELS OF SYSTEMS AFFECTED:	Bradley Stinger Fighting Vehicle - Manpads Under Armor (BSFV-MUA)	'ehicle - Manpads Under A	rmor (BSFV-MUA)		
DESCRIPTION / JUSTIFICATION:					
The Bradley LINEBACKER, formerly the Bradley Stinger Fighting Vehicle-Enhanced (BSFV-E), is an air defense system based upon minimal upgrades to the currently fielded BSFV-MUA. The Bradley LINEBACKER provides heavy maneuver forces with dedicated air defense against a variety of threat platforms. The Bradley LINEBACKER is a Non-Development Item rapid acquisition procurement to upgrade the existing BSFV-MUA with the addition of	merly the Bradley Stinger Figh The Bradley LINEBACKEF ACKER is a Non-Developmen	nting Vehicle-Enhanced (BS Resovides heavy maneuver to Item rapid acquisition proc	FV-E), is an air defense storces with dedicated air surement to upgrade the e	system based upon minimal defense against a variety of xisting BSFV-MUA with the	upgrades to threat addition of
Bradley LINEBACKER modification kit. The kit includes an integrated, externally mounted Standard Vehicle Mounted Launcher with a modified fire control. It fires up to four Stinger missiles while the crew remains under armor protection. The Bradley LINEBACKER fielding maximizes the utility of the FAADS C2I Kit and the Bradley Fighting Vehicle-Operational Desert Storm Kit, which are being fielded separately by CECOM and TACOM. This materiel solution corrects major Air Defense Artillery deficiencies in survivability, fire control, target acquisition and identification with a reduction in crew	tion kit. The kit includes an in er missiles while the crew rem Fighting Vehicle-Operational Air Defense Artillery deficienc	tegrated, externally mounte lains under armor protection Desert Storm Kit, which are sies in survivability, fire cont	id Standard Vehicle Moun The Bradley LINEBAC being fielded separately in target acquisition and	des an integrated, externally mounted Standard Vehicle Mounted Launcher with a modified fire crew remains under armor protection. The Bradley LINEBACKER fielding maximizes the utility of the artional Desert Storm Kit, which are being fielded separately by CECOM and TACOM. This deficiencies in survivability, fire control, target acquisition and identification with a reduction in crew	d fire utility of the This
size as a force savings.					
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:	EVELOPMENT MILESTONES:		PLANNED	ACCOMPLISHED	
Contractor technical test and evaluation	it and evaluation		Feb-96	Mar-96	
Government technical test and evaluation	est and evaluation		Apr-96	96-InC	
Operational test and evaluation	/aluation		Sep-96	Sep-96	
Production decision			Nov-96	Nov-96	

				INDIN	JUAL	INDIVIDUAL MODIFICATION	TION						Date			February 1997	y 1997	
MODIFICATION TITLE (Cont):	8	Bradley LINEBACKER	NEB/	CKER		ő	OSIP # TBD											
FINANCIAL PLAN: (\$ in Millions)		_																
	FY 1996	FV 1997		FY 1998	_	FY 1999	FY 2000	0	FY 2001	-	FY 2002	-	FY 2003	_	5		TOTAL	AL.
	Oty 8	άþ		Oty		Oty \$	Oth	Н	Qty		Oty 8	3	H	Н	Oty	€9	Q Q	છ
RDT&E	8.8		_						_							18.0		26.8
PROCUREMENT												-						
Kit Quantity	80	66		0		0					33		40		194		374	
Installation Kits						-												
Installation Kits Nonrecurring																		
Equipment	6.3	***	7.1		3.7	0	0.0					16.9		56.9	_	149.0		209.9
Equipment Nonrecurring		_		_	_		_			_								
Engineering Change Orders	Proponency for Bradley LINEBACKER was transferred from Stinger PMO to Bradley PMO in FY97.	for Bradley	LINEB	ACKER	was tra	insferred 1	rom Stinger	PMO to	Bradle	v PMO	in FY97.	_						
Data	The Army will request the \$7.1M in FY97 be moved to Bradley PMO through Omnibus Reprogramming.	I request th	e \$7.1	M in FY	7 be m	oved to B	radley PMO	through	Omnib	ıdeH sr	ogramm	ing.		_				
Training Equipment	FY98 and outyear funding will be used for additional Stinger Block I Upgrades (C21300) thereby reducing modification unit cost.	tyear fundir	lliw bu	pesn ec	for add	itional Stir	ger Block I l	Jpgrade	s (C213	100) the	reby red	ucing m	odificat	tion unit	t cost.			
Support Equipment																		
Other						-									-			
Interim Contractor Support																		
Installation of Hardware	Inst	l allation of H	ا اardwa	re costs	are inc	luded in E	Installation of Hardware costs are included in Equipment above.	ove.										
FY 1996 & Prior Eqpt - Kits															_			
FY 1997 Eqpt Kits								-									<u>-</u>	
FY 1998 Eqpt Kits																		
FY 1999 Eqpt Kits																		
FY 2000 Eqpt kits																		
FY 2001 Eqpt kits																		
FY 2002 Eqpt kits																		
FY 2003 Eqpt kits																-		
(FY(TC) Eqpt (xx kits)						-		+	\dashv	+	1	+	+	+	1	7		
Total Installation Cost								\dashv		1		+	-	\dashv	+	1	1	
Total Procurement Cost	8 6.3	66	7.1	0	3.7	0	0.0			-	33	16.9	40	26.9	194	149.0	374	209.9
INCITATINGME IDMI TO COULTING	rotoestaco	ż	٧	SHAIMIN.	PBATIV	ADMINISTRATIVE I FAD. TIME:	TIME:	2	Months	ā	PRODUCTION FAD-TIME:	I NOI	AD-TIA	ij		6	Months	
Contract Dates:				FY97 FY98	Ŀú	FY 1998: FY 1998:	not applicable			. i. i.	FY 1999: FY 1999:	not	not applicable	ble				
Delivery Date:	10	ı		3	-	1990.	indep ion	a constant				2	applied a					

Installation Schedule: Bradley LINEBACKER	nle: Br	adley	LINEE	3ACKE	ä	OSIF	OSIP # TBD	윤								Date		Ľ	February 1997	397				
	FY 1996		FY 1997	197		ш	FY 1998	~		Ĺ	FY 1999			Ĺ	FY 2000			F	FY 2001					
	& Prior	-	%	ෆ !	41	1 2	21	41	-	C 1	(3)	41	Н	Ø	ന	41	-1	ঝ	က	41				Total
Inputs																								
FY 1996 & Prior	8																							80
FY 1997			-	-		40	0 30	0 27	2															66
FY 1998																								0
FY 1999																								0
Outputs																								
Sinding																								
FY 1996 & Prior	æ																							8
FY 1997				_	-	30	0 30	02 0	7 0															66
FY 1998																								0
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			FY 2000	_		Ā	FY 2001			FΥ	FY 2002			FY 2003	003			FY 2004	4			FY 2005		
		-	8	ო	4	2	60	4	-	2	က	4	-	8	က	4	-	Ø	က	4	-	2 3	4	Total
Inputs																								
FY 2000																								0
FY 2001																								0
FY 2002										00	80	œ	6											33
FY 2003														10	10	10	10							40
Outputs																								
FY 2000																								0
FY 2001																								0
FY 2002												æ	8	80	6									33
FY 2003																9	10	9	0					40
Remarks:																								

						DATE		
	BUL	BUDGET ITEM JUSTIFICATION SHEET	TIFICATION SHI	EET			February 1997	
APPROPRIATION / BUDGET ACTIVITY	CTIVITY			P-1 ITEM NOMENCLATURE	ш			
MISSILEF	PROCUREMENT	MISSILE PROCUREMENT /Modification of	Missles			ITAS/TOW MODS (C61700)	DS (C61700)	
	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
QUANTITY	0	0	0	0	0	0	0	0
COST (in millions)	40.7	0.0	62.8	63.8	64.4	63.8	2.79	59.9

software serves to increase gunner proficiency over that of the previous TOW system. ITAS will support the U.S. Army mission of crisis response to DESCRIPTION: TOW Improved Target Acquisition System (ITAS) program is a technology insertion program to upgrade the current TOW Target Acquisition and Fire Control Subsystems. The TOW ITAS will provide improved target detection and acquisition range, improved probability of hit Assembly (SADA) Il technology to detect and recognize enemy targets day or night at greater ranges and with greater resolution. This allows the developed for ITAS horizontally applies to Bradley TOW upgrades. ITAS takes advantage of state of the art infrared Standard Advanced Dewar gunner to utilize TOW's maximum effective range, increasing lethality and survivability against armor and other targets. The embedded training and enhanced fire control capabilities that will upgrade the anti armor capability of light forces using the TOW system. Technology insertion regionally based threats and allows for TOW to continue to be integral to the strategic principle of CONUS based force projection.

The missile modification (MOIC) Materiel Change (MC) provides/installs MOICs (safety requirement) on Basic/ITOW heat missiles used for training. The MOIC precludes flight motor ignition and S&A arming in the event of missile malfunction.

The objective of missile conversion and modification is to maintain a continuous source for training by utilizing out-of-production missiles (Basic TOW extended Range ITOW, rather than procuring training missiles). Mod kit procurement will continue until these missiles are depleted. The missile conversion MC converts Basic/ITOW heat missiles to practice missiles by replacing the heat warhead with a practice warhead. It also provides for a Missile Ordnance Inhibit Circuit (MOIC-Safety Requirement) and an epoxy coated T250 maraging steel launch motor.

Ground/HMMWV-Mounted TOW 2 System. ITAS also provides for growth potential for next generation missile. Funding is also required to maintain and fire control subsystems. This enhances Army posture against regionally based threats, promotes effective crisis response and increases overall the production of the above essential MCs. These MCs are necessary to meet training/safety standards and upgrades the current TOW acquisition JUSTIFICATION: Funding is required for the ITAS program, which upgrades the detection recognition and fire control capabilities of the current

	DATE
BUDGET ITEM JUSTIFICATION SHEET	February 1997
APPROPRIATION / BUDGET ACTIVITY	
MISSILE PROCUREMENT /Modification of Missles	ITAS/TOW MODS (C61700)

			FY 2003		5.6	4.0		53.9	59.9
		i	FΥ						
1997	(00,		FY 2002		0.0	0.0		2.79	2.79
February 1997	S (C617		FΥ						
ш	ITAS/TOW MODS (C61700)		FY 2001		0.0	0.0		63.8	63.8
	ITAS/T(F						
			FY 2000		0.0	0.0		64.4	64.4
			Ē	:					
	P-1 ITEM NOMENCLATURE		FY 1999		9.	0.4		61.8	63.8
EET	P-1 ITEM NOI						EM)		
TION SH	S		FY 1998	ACTICE)	0.0	0.0	ON SYST	62.8	62.8
STIFICA	of Missles	İ	12	r to PR/	0.0	0.0	QUISITI	0.0	0.0
ITEM JL	dification		FY 1997	ON(HEA	OW/NO!	0	RGET AC	0	0
BUDGET ITEM JUSTIFICATION SHEET	ENT /Moc			NVERSI	34.3 IODIFICAT	13.5	VED TA	36.0	83.8
	ION/BUDGET ACTIVITY MISSILE PROCUREMENT /Modification of I	Description	All Priors	MC-1-82-03-3020 MISSILE CONVERSION(HEAT TO PRACTICE)	SAFETY 34.3 0.0 MC-1-82-03-3021 MISSILE MODIFICATION(MOIC)	_	MC-1-89-03-3028 ITAS(IMPROVED TARGET ACQUISITION SYSTEM)		3
	ILE PRO	De	ΙΨ	020 MI	021 MIS		028 ITA	 	
	APPROPRIATION / BUDGET ACTIVITY MISSILE PROC	OSIP No.	Classification	1-82-03-3	SAFE 1 Y MC-1-82-03-3	SAFETY	1-89-03-3	OPERATIONAL	TOTALS
\Box	APPRO	OSI	Clas	S S	NA CA	SAF	Š	OPE	TOT

	2	AODIFIC/	ATION IN	ISTALL	MODIFICATION INSTALLATION SUMMAR Date	UMMAF		February 1997	1997
		,	(TOA, Dollars in Millions)	ollars in	Millions)				
	Prior								
System/Modification	FY 1996	EY 199Z	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	TOTAL
ITAS/TOW MODS C61700 MISSILE CONVERSION(HEAT TO PRACTICE)	12.6					0.0	0.0		15.1
MISSILE MODIFICATION(MOIC) ITAS(IMPROVED TARGET ACQUISITION SYSTEM)	4.3	0.0	0.0	0.4	0.0	0.0		0.0	1.5
Totals	16.9	0.0	0.1	2.1	0.2	0.3	0.3	1.4	21.3

					NDIVID	INDIVIDUAL MODIFICATION	DIFICAT	NOI						۵	Date	ľ	February 1997	ry 1997	
MODIFICATION TITLE (Cont):		MISSI	MISSILE CONV		RSION	(HEA	TO P	ERSION(HEAT TO PRACTICE) MC-1-82-03-3020	ICE) N	AC-1-8	32-03-	3020							
FINANCIAL PLAN: (\$ in Millions)		Г																	
	and Prior	F	Y 1997	-	FY 1998	FY	1999	FY:	FY 2000	FY	FY 2001	FY	FY 2002	FY 2003	603	TC		TOTAL	
	Oty \$	Oty	€9	Ö	& 	ğ	49	Q	49	ਰੇ	ક્ક	Qt	↔	Qţ	\$	Qty	€	οţ	8
RDT&E PROCUBEMENT																			
Kit Quantity	-																		
Installation Kits																			
Installation Kits Nonrecurring			_																
Equipment	60213 21.7	۲.												4977	4.7			65190	26.4
Equipment Nonrecurring																			
Engineering Change Orders																			
Data											<u> </u>			-					
Training Equipment																			
Support Equipment																			
Other	=																		
Interim Contractor Support																			
							,												
Installation of Hardware				· - ·-															
FY 1996 & Prior Eqpt Kits	55213 12.6	9.	-		· · · · <u>-</u>	3328	9 1.6	"						1672	6.0			60213	15.1
FY 1997 Eqpt Kits																			
FY 1998 Eqpt Kits																			
FY 1999 Eqpt Kits																-			
FY 2000 Eqpt kits	· · · · · ·																		
FY 2001 Eqpt kits																			
FY 2002 Eqpt kits																			
FY 2003 Eqpt kits																4977	2.7	4977	2.7
(FY(TC) Eqpt - kits				_		_													
Total Installation Cost	55213 12	12.6		-		3328	8 1.6	9						1672	6.0	4977	2.7	65190	17.8
Total Procurement Cost	88	34.3		\dashv	-	_	1.6	9			╛				5.6		2.7		44.2
METHOD OF IMPLEMENTATION Depot Team	Depot Teal	8		AD	AINISTE	ADMINISTRATIVE LEADTIME:	EADTIN	Ē	24	Months	ø	PROD	UCTION	PRODUCTION LEADTIME:	<u>M</u> Ë	15	Months		
Contract Dates:	FY 97	:				FY 1998:	:86					FY 1999	6						
	FY 97					FY 1998:	:86	1098				FY 1999	6						

Installation Schedule:	MISSILE CONVERSION(HEAT TO PRACTICE) MC-1-82-03-3020	NVERS	ONCE	EAT	TO PF	ACTI	CE) M	C-1-8	2-03-3	020				Date		Febru	February 1997	266				
L	FY 1996 FY	FY 1997			FY 1998	60			FY 1999			£	FY 2000			FY 2001	, 10					
	& Prior 1 2	ଚା	41	→ 1	C/I		41		rol	41	-	8	m	41	-	21	က	41				Total
Inputs																						
FY 1996 & Prior	10950			3000 2000	2000																	15950
FY 1997																						
FY 1998																						
FY 1999																						
Outputs																						
FY 1996 & Prior	21703						16	1664 1664	25													25031
FY 1997																						
FY 1998																						
FY 1999																						
	FY 2000	000		ĬĿ	FY 2001			Ā	FY 2002			FY 2003	03		_	FY 2004	*		Œ	FY 2005		
	-	2 3	4	-	2	က	4	_	8	3 4	_	8	က	4	-	2	က	4	-	2	ဗ	4 Total
Inputs																						
FY 2000																						
FY 2001																						
FY 2002																						
FY 2003																						
Outputs																						
FY 2000*											836	836										1672
FY 2001																						
FY 2002																						
FY 2003																						
Remarks:																						
* FY 96 HARDWARE																						

					INDI	/IDUAL	INDIVIDUAL MODIFICATION	FICATIC	NC						٥	Date		eprua-	February 1996	
MODIFICATION TITLE (Cont):		Σ	ISSILE	MOD	IFICA.	TION(MOIC	MC-	MISSILE MODIFICATION(MOIC) MC-1-82-03-3021	-3021										
FINANCIAL PLAN: (\$ in Millions)									d											
	FY 1996	96	EV 1007	Ī	4000		EV 1000	900	2000	9	200	2	2000	2	20,77	9	F		F	-
	Q A	es	Ž O O	69	20	69	" ≥	69 69	OF VI	+	Oth VIO	+	OF YOU	y 65	Oty Suga	3 4	2 40	65	10 AC	4
RDT&E PROCUREMENT Kit Quantity Installation Kits					,					1			1		6	•	i			
Installation Kits Nonrecurring											,									
Equipment Nonrecurring	79995	90													1000	4.0			36667	9.6
Engineering Change Orders Data																				
Training Equipment Support Equipment			-										-							
Other																				
Interim Contractor Support																				
							·													
FY 1996 & Prior Eqpt Kits	34667	4.3					1000	0.4											35667	4.7
FY 1997 Eqpt Kits											·						***************************************			
FY 1998 Eqpt Kits								-								-				
FY 2000 Eapt Kits																				
FY 2001 Eqpt kits										******										
FY 2002 Eqpt kits																				
FY 2003 Eqpt kits (FY(TC) Eapt Kits																	1000	0.5	1000	0.5
Total Installation Cost	34667	4.3					1000	4.0		+	+	+	-			\dagger	1000	0.5	36667	5.2
Total Procurement Cost		13.5				H		0.4		H		$\mid \cdot \mid$			H	0.4		0.5		14.8
METHOD OF IMPLEMENTATION: Depot Team	N: Depot	Team		∢	ADMINISTRATIVE LEADTIME:	TRATI	VELEA	DTIME		24 Mo	Months	ă	PRODUCTION LEADTIME:	TION	EADTI!	ME	12 N	Months		
Contract Dates: Delivery Date:		FY 1997: FY 1997:	<u>.</u>		ĕ	3Q97 F	FY 1998: FY 1998:					ני ני	FY 1999: FY 1999:							

Installation Schedule: MISSILE MODIFICATION(MOIC) MC-1-82-03-3021	ule: MISS	SILEN	MODIFI FY 1997	CATI	JW)NC	OIC) MC-1 FY 1998	IC-1-8;	2-03-3		FY 1999	6		Ĺ	FY 2000	Date		Feb F	February FY 2001	February 1997 FY 2001					
		. 21	(C)	41	н	· 01	ମ	41	-1	ca ca		41 T		ଠା	41	-	C 1	ଠା	41				Н	Total
Inputs FY 1996 & Prior	2050				1000																			3050
FY 1997																								
FY 1998 FY 1999																								
Outputs																								
FY 1996 & Prior	2050								250	250 2	250 2	250												3050
FY 1997																								
FY 1998																								
FY 1999																								
		Ŧ	FY 2000			FY 2001	=		Œ	FY 2002			FΥ	FY 2003			FY 2004	904			FY 2005	ດ		
		-		e	4		က	4	-	7	ဇ	4	-		က	4		8	3	_	01	ဗ	4	Total
Inputs																								
FY 2000																								
FY 2001																								
FY 2002																								
FY 2003																								-
Outputs																								
FY 2000																								
FY 2001																								
FY 2002																								
FY 2003																								T
Remarks:																								

					NDIV	DUAL	MODIFIC	INDIVIDUAL MODIFICATION							Date	ľ	February 199	y 1997	
MODIFICATION TITLE (Cont):		ITAS	ITAS(IMPRO)	3OVE	D TA	3GET	ACQU	ISITIO	N SYS	TEM)	/ED TARGET ACQUISITION SYSTEM) MC-1-89-03-3028	9-03-3	028						
FINANCIAL PLAN: (\$ in Millions)		Γ																	
	FY 1996 and Prior		FY 1997		FY 1998	8	FY 1999	H	FY 2000	Ē	FY 2001	FY	2002	FY 2	2003	TC		TOTAL	AL
	Oty \$		Oty		Oty	\vdash	Qty		Oty \$	Qty	\$	Qt	8	Qty	8	Qty	æ	Qty	\$
RDT&E	9	104.6	-	0.1	\vdash			_											104.7
PROCUREMENT	-		-																
Kit Quantity	52				19		92		112	-	128	150		117		372		1057	
Installation Kits																			
Installation Kits Nonrecurring																			
Equipment	e	31.3				52.0	_	46.4	5	51.2	53.6	70	60.4		48.5		151.8		495.2
Equipment Nonrecurring																			
Engineering Change Orders																			
Data		0.7				0.8		8.0	_	9.0	0.2	01	0.5		0.2		0.5		4.0
Training Equipment		2.7				3.8		4.4		5.2	5.4	_	6.4		4.3		15.4		47.6
Support Equipment				•		2.5		7.6	_	0.9	4.0	_							20.1
Other		1.3				2.1		0.	_	1.2	0.3	<u>~</u>	0.4		0.4		0.8		7.5
Interim Contractor Support	***			_		7:		5.											3.0
																		-	
Installation of Hardware							-												
FY 1996 & Prior Eqpt Kits					91	0.1	6			-								25	0.1
FY 1997 Eqpt Kits																			
FY 1998 Eqpt Kits							20	0.1										61	0.1
FY 1999 Eqpt Kits							_) 92	0.2								92	0.3
FY 2000 Eqpt kits										0,	92 0.2							112	0.3
FY 2001 Eqpt kits												106	0.2	22	0.1			128	0.3
FY 2002 Eqpt kits														124	4.0	56	0.1	150	0.5
FY 2003 Eqpt kits	_										•••					117	0.3	117	0.3
(FY(TC) Eqpt (xx kits)								_	_							372	6.0	372	0.9
Total Installation Cost					16	0.1	29	0.1	87 (0.2 10	108 0.3	3 126	0.3	146	0.5	515	1.3	1057	2.8
Total Procurement Cost	3	36.0	_	\dashv		62.8		61.8	9	64.4	63.8	3	67.7		53.9		169.8		580.2
MOTTOD OF IMPLEMENTATION: DEDOT TEAM	- DEBOT 1	NA A		4	SAINIC	TDATIL	ADMINISTBATIVE I EADTIME	TIME	ç	Months	9	CCaa	OITO	PROPINCTION FADTIME:	į. Į.	Ţ	Months		
Contract Dates:		FY 1997:		ć		Ĺ	7 1998:	1098			2	FY 1999:	39:	1099	i				
Delivery Date:	Ā	FY 1997:				Ĺ	FY 1998:		66			FY 1999:	:66	1000					

Installation Schedule:	ITAS(IMPROVED TARGET ACQUISITION	TARG	ET AC	SINOC	TION	N SYSTEM) MC-1-89-03-3028	EM)	1C-1-	39-03	-3028			Date		Fet	ruary	February 1997				
Ā	FY 1996 FY 1997			FY 1998	86		. "	FY 1999				FY 2000			Ā	FY 2001					
જ	& Prior 1 2 3	41	₽	αI	ଚା	41	F	2	41	-	C/I	က	41	ᅱ	Ø	Ø	41				Total
Inputs																					
FY 1996 & Prior		4	8	ဖ	9	7															
FY 1997																					
FY 1998							15	15	15	16											61
FY 1999										.4	21 2	23 24	4 24								92
Outputs																					
FY 1996 & Prior				4	9	9	6														25
FY 1997																					
FY 1998							Ŋ	. 51	15 1	15 1	=										61
FY 1999											7 2	21 24	4 24	16	<i>(</i> 2						92
	FY 2000		_	FY 2001			Ŧ	FY 2002			FY 2003	6003			FY 2004	904		-	FY 2005		
	1 2	3 4	-	0	က	4	-	8	က	4	_	2	3	_	- 2	e 6	4	-	7	ဗ	4 Iotal
Inputs																					
FY 2000			27	27	28	30															_
FY 2001							30	32	33	33								•			128
FY 2002										(c)	36 3	36 39	9 39	_							_
FY 2003														30	30	30	27				117
Outputs																					
FY 2000			O	27	27	53	20														_
FY 2001							10	30	33 3	33 2	22										128
FY 2002										-		36 37	7 39	56							150
FY 2003														10	30	30	29	18			117
Remarks:																					

						DATE		
	BUL	BUDGET ITEM JUSTIFICATION SHEET	TIFICATION SH	EET			February 1997	
APPROPRIATION / BUDGET ACTIVITY	TIVITY			P-1 ITEM NOMENCLATURE	3			
ž	MISSILE PROCUREMENT Modification of Missiles	fodification of Missiles				MLRS MODS (C67500)	S (C67500)	
	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
QUANTITY	0	0	0	0	0	0	0	0
COST (in millions)	27.5	6.4	2.2	2.2	2.3	2.6	2.6	2.5
					l		•	

DESCRIPTION: Modification kits are procured for previously manufactured MLRS launchers and the associated training and ground support equipment. The following page provides a list of approved modifications.

DATE		P-I ITEM NOMENCLATURE	MLRS MODS (C67500)
	BUDGET ITEM JUSTIFICATION SHEET	APPROPRIATION / BUDGET ACTIVITY	MISSILE PROCUREMENT / Modification of Missiles

THE PROPERTY OF THE PARTY OF TH								
	MISSILE PROCUREMENT (Modification of Missiles	Modification of Missiles	<u></u>	P-1 ITEM NOMENCLATURE				
						MLHS MOUS (C6/500)	57500)	
OSIP No.	Description							
Classification	All PYs	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
1-84-03-0502	Improved Electronic Unit (IEU)	onic Unit (IEU)						
	71.5	0.7	0.5	0.5	9.0	9.0	0.7	0.7
1-85-03-0508	Launcher Loade	Launcher Loader Module Improvements (LLM)	ents (LLM)					
	33.5	0.2	0.0	0.0	0.0	0.0	0.0	0
1-85-03-0509	Improved Launc	Improved Launcher (Deep Attack) M	Modifications					
	37.5		0.0	0.0	0.0	0.0	0.0	0
1-94-03-0520	Carrier Improvements Phase IV	ments Phase IV	- H					
	3.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0
1-94-03-0522	Transmission El	Transmission Electronic Controller (TEC)						
	26.3	0.0	0.0	0.0	0.0	0.0	0.0	0
1-94-03-0525	Fire Suppression Change	ր Change						3
	0.0	0.8	0.1	0.1	0.0	0.0	0.0	C
1-94-03-0528	Interim IPDS Launcher	uncher						
	16.2	2.2	0.5	0.5	9.0	9.0	0.7	0.7
1-94-03-0529	Interim MS Launcher	-						
	6.6	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1-95-03-0530	Hoist Carriage Assembly	ssembly						
	3.8	6.0	0.0	0.0	0.0	0.0	0.0	0.0
1-95-03-Obsc	Obsolescence M	Obsolescence Mitigation/ECP Reliab	iability Integration					
	2.2	1.4	1.0	1.0	1.0	1.3	1.1	1.0
Totals	0 400	V	c	c c	C	C	. (
	7:103	†	7:7	7.7	Z.3	2.0	2.6	2.5
		10 A 200 C						

Exhibit P-40 Budget Item Justification Sheet

							Date	Cobragan 1007	
MODIFICATION INSTALLATION SUMMARY			(TOA, D	(TOA, Dollars in Millions)	Millions)				
	λa								
System/Modification	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	TOTAL
MLRS MODS									
C67500					((,
Improved Electronic Unit (IEU)	0.7	0.0		0.0	0.0	0.0			0.7
Launcher Loader Module Improvements (LLM)	11.3			0.0	0.0	0.0			11.3
Improved Launcher (Deep Attack) Modifications	4.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.8
Carrier Improvements Phase IV	2.2			0.0	0.0	0.0			2.3
Transmission Electronic Controller (TEC)	7.4			0.0	0.0	0.0			7.4
Fire Suppression Change	0.0			0.1	0.0	0.0		0.0	0.3
Interim IPDS Launcher	0.0			0.0	0.0	0.0			0.0
Interim MS Launcher	0.0			0.0	0.0	0.0			0.0
Hoist Carriage Assembly	0.5	0.0		0.0	0.0	0.0			1.4
Obsolescence Mitigation/ECP Reliability Integration	0.0			0.0	0.0	0.0			0.0
	90			Č	c	c	Ċ	Ċ	28.2
Totals	20.9	<u>:</u>		- -	9.	9			1.01

	INDIVIDUAL MODIFICATION Date Februsary 1997
MODIFICATION TITLE:	
MODELS OF SYSTEMS AFFECTED: N	MULTIPLE LAUNCH ROCKET SYSTEM (MLRS)
DESCRIPTION / JUSTIFICATION:	
This improvement increases the operational capa missile and rocket programs. The IEU expands the 32K RAM to 612 DRAM. Six computer interface to	This improvement increases the operational capability of the existing Version 4.0 software to provide the necessary growth capability for new missile and rocket programs. The IEU expands the operational memory capability of the MLRS Fire Control System (FCS) from 96K ROM and 32K RAM to 612 DRAM. Six computer interface ports, an internal magnetic bubble memory, and three more efficient minicomputers are
incorporated which enhance flexibility to accommy reprogrammable software and can be updated by Test Program Set (TPS) support equipment consists (BSTS) and Integrated Family of Test Equipment	incorporated which enhance flexibility to accommodate planned and potential warhead growth programs. The IEU allows usage of Version 6.0x reprogrammable software and can be updated by the user with a portable Program Load Unit (PLU). The Line Replaceable Unit (LRU) Test Program Set (TPS) support equipment consists of software, hardware and documentation used in conjunction with Base Shop Test Stations (BSTS) and Integrated Family of Test Equipment (IFTE) to detect and isolate LRU failures.
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES	OBMENT MI ESTONES.
	PLANNED ACCOMPLISHED Development complete - Incorporated into current production.

					QNI	VIDUAL	MODIF	INDIVIDUAL MODIFICATION	z							Date		February 1997	266	
MODIFICATION TITLE (Cont):		Ē	orove	d Elec	tronic	Unit (II	EU) 1-	Improved Electronic Unit (IEU) 1-84-03-0502	-0502											
FINANCIAL PLAN: (\$ in Millions)	FV 1996																			
	and Prior	j j	FY 1997	266	FY 1998	860	FY 1999	661	FY 2000	000	FY 2001	100	FY 2002	200	FY 2003	003	TC	H	TOTAL	
	Qty	\$	οţ	\$	Qţ	49	Ωty	€9	Qţ	€9	Qty	æ	Qty	\$	Oty	\$	Offy	\$	Ωty	\$
RDT&E																				
PROCUREMENT																				
Kit Quantity																				
Installation Kits																				
Installation Kits Nonrecurring					-								_							
Equipment	998	36.6				-													998	36.6
Equipment Nonrecurring													-					_		
Engineering Change Orders				-																
Data															-					
Training Equipment																				
Support Equipment*		34.2		0.7		0.5		0.5		9.0		9.0		0.7		0.7				38.5
Other																				
Interim Contractor Support																				
Installation of Hardware																				
EV 1006 9 Drior East - 966	990	١ ٥		•													•		RGG	0.7
1 1990 & 11101 Equit 800	90	<u>.</u>										-							3	5
FY 1997 Eqpt Kits																				
FY 1998 Eqpt Kits																				
FY 1999 Eqpt Kits		-																		
FY 2000 Eqpt kits						-														
FY 2001 Eqpt kits		-																		
FY 2002 Eqpt kits																				
FY 2003 Eqpt kits																				
(FY(TC) Eqpt (xx kits)																				
Total Installation Cost	998	0.7																	998	0.7
Total Procurement Cost		71.5		0.7		0.5		0.5		9.0		9.0		0.7		0.7				75.8
METHOD OF IMPLEMENTATION Depot Field Application	N Depot Fig	ald Ap	plicatio		ADMINI	STRATI	VE LEA	ADMINISTRATIVE LEADTIME:		_	Months		PRODUCTION LEADTIME:	CTION	LEADT	IME:	Wo	Months		
Contract Dates:	Ŧ	FY 1997:				-	FY 1998:						FY 1999:	<u></u>						
Delivery Date:	<u>.</u>	FY 1997:				•	FY 1998:	٠					FY 1999:							

Installation Schedule:		oved	Improved Electronic Unit (IEU) 1-84-03-0502	onic (Juit (1	EU) 1-	84-03	-0502							Date			February 1997	1997		
	0		FY 1997			. "	FY 1998			Ŧ	FY 1999			FY 2000			ш	FY 2001			
	& Prior 1		C)	ත	41	1 2	2 <u>1</u>	41	H	C#	Ø	41	-	CVI	ය) 41			(C)	41		Total
Inputs																					
FY 1996 & Prior	998																				866
FY 1997																					
FY 1998																					
FY 1999																					
Outputs																					
FY 1996 & Prior	998																				998
FY 1997																					
FY 1998																					
FY 1999																					
		ú	EV 2000			à	EV 2004			EV 2002	S		2	EV 2003			>	EV 2004		EV 2006	
			3	œ.	4	-	2	œ	4		e.	4	-	6	ď	4	-		4	-	A Total
4::1			ı)			ı					•	•	1)	•					•
Inputs																					
FY 2000																					
FY 2001																					
FY 2002																					
FY 2003																					
Outputs																					
FY 2000																					
FY 2001																					
FY 2002																					
FY 2003																					
Remarks:																					
*TPS Support Equipment does not require installation funding.	ment does r	not re	quire ins	tallatic	in fund	ina															
						b															

					VIDNI	IDNAL	INDIVIDUAL MODIFICATION	TION							Date		Febru	February 1997	
MODIFICATION TITLE (Cont):		٦	uncher	Load	er Moa	ule In	Launcher Loader Module Improvements (LLM) 1-85-03-0508	ents (L	LM) 1-i	85-03-	9050								
FINANCIAL PLAN: (\$ in Millions)	EV 4000	١				-													
	and Prior	rior	FY 1997		FY 1998	8	FY 1999	FY	FY 2000	FY 2001	2001	FY 2002	200	FY 2003	500	T		TOTAL	Ā
	Qty	\$	Off V		Qty	\vdash	Oty \$	ð	€	Qţ	s	Ŏ Ş	69	Ş	\$	Ş	89) ≥	69
RDT&E			-						-										
PROCUREMENT																			
Kit Quantity																			
Installation Kits																			
Installation Kits Nonrecurring																			
Equipment	433	22.2		_														433	22.2
Equipment Nonrecurring																			
Engineering Change Orders																			
Data							-												
Training Equipment																			
Support Equipment				0.2		-													0.2
Other																			
Interim Contractor Support																			
Installation of Hardware																********			
FY 1996 & Prior Eqpt 433	433	11.3																433	11.3
FY 1997 Eqpt Kits															-				
FY 1998 Eqpt Kits																-			
FY 1999 Eqpt Kits																			
FY 2000 Eqpt kits			-										-			-			
FY 2001 Eqpt kits																			
FY 2002 Eqpt kits																			
FY 2003 Eqpt kits																			
(FY(TC) Eqpt (xx kits)														-					
Total Installation Cost	433	11.3		-	-										Γ			433	11.3
Total Procurement Cost		33.5		0.2															33.7
			:	1															
Contract Dates:	N Depot P	FIBIO ADD	piication	¥	SMINIS	AA S	ADMINISTRATIVE LEADTIME:	ME:		Months		PRODUCTION LEADTIME: EX 4000:	CTION	LEADTI	ME:	~	Months		
Delivery Date:	L U	FY 1997.				_ 1	FY 1998: EV 1009:					FY 1999:	<u>.</u> . :						
Delivery Date.	L	1881				Ξ	1896:				_	FY 1999:							

Installation Schedule: Launcher Loader Module Improvements (LLM) 1-85-03-0508	ule: Lau	nche	rLoa	der N	lodul	e Imc	roven	nents	(LLM)	1-85	-03-05	808				٥	Date		Febru	February 1997					
	FY 1996		FY 1997	266			Ŧ	FY 1998			FY 1999	666			FY 2000	000			FY 2001	5					
	& Prior	-	01	(C)	41	H	(1)	ଜା	41	Η	C 1	က	41	-1	01	വ	41	←	C I	(C)	41				Total
Inputs																									
FY 1996 & Prior	433																								433
FY 1997																									
FY 1998																									
FY 1999																									
Outputs																									
FY 1996 & Prior	433																								433
FY 1997																									
FY 1998																									
FY 1999																									
		-	FY 2000	9			FY 2001	10			FY 2002	75			FY 2003	က		u.	FY 2004			FΥ	FY 2005		
		-	Ø	က	4		2	e 6	4	-	8	ო	4	-	7	က	4	-	7	က	4	-	2	ဗ	4 Total
Inputs																									
FY 2000																									
FY 2001																									
FY 2002																									
FY 2003																									
Outputs																									
FY 2000																			•						
FY 2001																									
FY 2002																									
FY 2003																									
Remarks:																									
Support equipment for Aft Corner Post modification.	nt for Aft Co	rner F	ost mo	odificat	ion.																				

	INDIVIDUAL MODIFICATION	Date	February 1997
MODIFICATION TITLE:	Improved Launcher (Deep Attack) Modifications 1-85-03-0509		
MODELS OF SYSTEMS AFFECTED: MULTIPLE LAUN	MULTIPLE LAUNCH ROCKET SYSTEM (MLRS)		
DESCRIPTION / HISTIEICATION.			

The Improved Launcher (Deep Attack) modification kit consists of the Payload Interface Module (PIM), with associated cables and hardware, which launcher, the EB, and the Improved Electronic Unit (IEU). The modification provides the capability of supplying power to, and communication with, payload onboard processors for transmitting prelaunch programming information and for the management of payload-peculiar time-sequencing modification provides for upgrade to the existing MLRS capabilities, including training devices, and is required to support the addition of Army TACMS and other growth capabilities. The Improved Launcher modification provides the necessary interfaces between the warheads, the interface parameters. The PIM, as part of the Improved Launcher Mod Kit, becomes the standard payload interface module for all MLRS controls command and power distribution to the warhead and a modification to the Fire Control System (FCS) Electronic Box (EB). This launchers. The incorporation of the Improved Launcher modification causes no changes to the MLRS force structure.

Development complete -ACCOMPLISHED PLANNED DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

Incorporated into current production.

MODIFICATION TITLE (Cont): FINANCIAL PLAN: (\$ in Millions)														,	Date		Lebins	rebluary 1997	
		Impr	Improved Laur	unche	ncher (Deep Attack) Modifications 1-85-03-0509	p Atta	ck) Mo	dificati	ons 1-	85-03-	020								
	1	Г																	
-	and Prior		FY 1997	Ē	1998	FY	1999	FY 2	FY 2000	FY 2001	100	FY 2002	202	FY 2003	203	TC	O	TOTAL	AL
A)O	*		\$	ğ	Sty S	ğ	89	Off.	\$	Qty	\$	Qty	ક્ક	Q Š	ક્ક	Oty	₩	Qty	છ
RDT&E				_															
PROCUREMENT																			
Kit Quantity																			
Installation Kits																			
Installation Kits Nonrecurring												-							
Equipment 36	363 32	32.2																363	32.2
Equipment Nonrecurring																			
Engineering Change Orders																			
Data				-															
Training Equipment																			
Support Equipment		0.5																	0.5
Other																			
Interim Contractor Support					,														
Installation of Hardware															•				
363	363	4.8																363	4.8
FY 1997 Eqpt Kits											•								
FY 1998 Eqpt Kits																			
FY 1999 Eqpt Kits								-	•										
FY 2000 Eqpt kits																			
FY 2001 Eqpt kits																			
FY 2002 Eqpt kits																			
FY 2003 Eqpt kits											•								
(FY(TC) Eqpt (xx kits)	-	_																	
Total Installation Cost 36	363	4.8																363	4.8
Total Procurement Cost	3	37.5		_	_														37.5
METHOD OF IMPLEMENTATION Depot Field Application	pot Fie	ld Appli	cation	ADM	ADMINISTRATIVE LEADTIME:	TIVE L	EADTIN	ij		Months		PRODUCTION LEADTIME:	CTION	LEAD	.IME:		Months		
Contract Dates:	Ŧ	FY 1997:				FY 1998:	.86					FY 1999:							
Delivery Date:	F	FY 1997:				FY 1998:	.86:					FY 1999:	::						

Installation Schedule: Improved Launcher (Deep Attack) Modifications 1-85-03-0509	lule: Impr	J pano.	aunch	Jer (D	eep A	ttack)	Modific	ations	1-85-	03-050	6				Date		Ŗ	February 1997	26				
	FY 1996	iT.	FY 1997			. ₹	FY 1998			FY 1999	0		Ĺ	FY 2000			FY	FY 2001					
	& Prior	1 2	ල) 	41	H	C4	M	41	-	C)		4		Ю	41	-	C)I	m	41				Total
Inputs																							
FY 1996 & Prior	363																						363
FY 1997																							
FY 1998																							
FY 1999																							
Outputs																							
FY 1996 & Prior	363																						363
FY 1997																							8
FY 1998																							
FY 1999																							
		Ā	FY 2000			FY 2001	0		Ĺ	FY 2002			ΕY	FY 2003			FY 2004	74		FY 2005	500		
		_		e e	4	1 2	က	4	-	8	က	4	-		ნ 4	-	7	က	4	· -	2 3	4	Total
Inputs																							
FY 2000																							
FY 2001																							
FY 2002																							
FY 2003																							
Outputs																							
FY 2000																							
FY 2001																							
FY 2002																							
FY 2003																							
Remarks:																							

	INDIVIDUAL MODIFICATION	Date	February 1997
MODIFICATION TITLE:	Carrier Improvements Phase IV 1-94-03-0520		
MODELS OF SYSTEMS AFFECTED:	MULTIPLE LAUNCH ROCKET SYSTEM (MLRS)		
PERSONNEL INCIDENTAL AND A TONIC			
DESCRIPTION / JUSTIFICATION: This modification is a consolida Improvements include the addit particulate filter unit plug for the	ESCRIPTION AND INCOME. This modification is a consolidation of nine (9) Class I ECPs addressing reliability, availability, maintainability, and dependability (RAM-D). Improvements include the addition of a fuel system heater valve, improved cab ventilation duct system, speedometer relocator, and a gas particulate filter unit plug for the NBC heater. This modification also corrects four (4) safety hazards by improving the commander's work station,	vility, maintainability, and dependability and dependability or duct system, speedometer relocator, aty hazards by improving the command	(RAM-D). and a gas ler's work station,
adding a map light for tactical c prevent the existing engine co	adding a map light for tactical conditions, adding mounting provisions for an additional hand held fire extinguisher, and provides measures to prevent the existing engine compartment fire extinguisher from being inadvertently discharged.	ind held fire extinguisher, and provides arged.	measures to
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:		PLANNED ACCOMPLISHED Development complete - Incorporated into current	Development complete - Incorporated into current production.

					INDIN	OUAL N	INDIVIDUAL MODIFICATION	TION							Date		Februa	February 1997	
MODIFICATION TITLE (Cont):		Carrie	er Imp	rover	nents	Phase	Carrier Improvements Phase IV 1-94-03-0520	-03-05	50										
FINANCIAL PLAN: (\$ in Millions)	EV 1006	. · Γ																	
	and Prior		FY 1997	-	FY 1998	H	FY 1999	F	FY 2000	FY	FY 2001	FY 2002	200	FY 2003	903	77		TOTAL	ر
	Qty \$		8		Ofy S	۲	Oty \$	ð	8	ģ	8	Q Ş	49	δ	49	δţ	49	Oţ.	49
RDT&E			_	-		\vdash		-		L									
PROCUREMENT																			
Kit Quantity																			
Installation Kits																			
Installation Kits Nonrecurring																			
Equipment	758 1	<u> </u>					-	٠										758	-
Equipment Nonrecurring								100.00											
Engineering Change Orders																	-		
Data																			
Training Equipment																			
Support Equipment																			
Other																			
Interim Contractor Support																			
Installation of Hardware																			
FY 1996 & Prior Fant 758	733	20	25	-														750	0
FY 1997 Fant Kits				<u>-</u>														86/	N.S
FY 1998 Eapt Kits							•												
FY 1999 Eqpt Kits																			
FY 2000 Eqpt kits																			
FY 2001 Eqpt kits																			
FY 2002 Eqpt kits																			
FY 2003 Eqpt kits																			
(FY(TC) Eqpt (xx kits)																			
Total Installation Cost	733 2	2.2	25	0.1	L			_	L						T			758	2.3
Total Procurement Cost	3	3.3		0.1															3.4
METHOD OF IMPLEMENTATION Depot Field Application	V Depot Field	i Applica	ation	AD	MINIST	AATIVE	ADMINISTRATIVE LEADTIME:	NĒ.	80	Months	_	PRODUCTION LEADTIME:	CTION	LEADTI	ME:	9	Months		
Contract Dates:	F	FY 1997:				Ŧ	FY 1998:					FY 1999:	<u>.</u> .						
Delivery Date:	FY 1	FY 1997:				Ŧ	FY 1998:					FY 1999:	1.						

Installation Schedule: Carrier Improvements Phase IV 1-94-03-0520	ule: Ca	rrier	mpro	veme	ints P	hase	N 1-€	14-03-	0520							J	Date		Feb	February 1997	24					
	FY 1996		FY 1997	1997			Ŧ	FY 1998			FY 1999	666			FY 2000	000			FY 2001	001						
	& Prior	-1	21	ଚ	41	H	21	ଠା	41	-1	αŧ	m	41	-	αį	(C)	41	-1	ଧ	ଠା	41					Total
Inputs																										ì
FY 1996 & Prior FY 1997	733	25																								758
FY 1998 FY 1999																										
Outputs																										
FY 1996 & Prior	733	52																								758
FY 1997																										
FY 1998																										
FY 1999																										
			FY 2000	8			FY 2001	5			FY 2002	2			FY 2003	δ.		_	FY 2004	4			FY 2005	35		
		-	2	ဗ	4	-	- 2	6	4	-	8	က	4	-	Ø	က	4	-	7	က	4	-	7	က	4	Total
Inputs																										
FY 2000																										
FY 2001																										
FY 2002																										
FY 2003																										
Outputs																										
FY 2000																										
FY 2001																										
FY 2002																										
FY 2003																					İ					
Remarks:																										
																									l	

	INDIVIDUAL MODIFICATION Date	February 1997
MODIFICATION TITLE:	Transmission Electronic Controller (TEC) 1-94-03-0522	
MODELS OF SYSTEMS AFFECTED:	MULTIPLE LAUNCH ROCKET SYSTEM (MLRS)	
The TEC, which is an automatic		efits of the
synchronism, fuel consumption, cold temperature fleet of vehicles, this will allow a commonality of tr	I EO modification are increased power availability, ability to tow in neutral, decreased maintenance, improvements in slope capability, shift synchronism, fuel consumption, cold temperature performance, and maneuverability in restricted areas. Through the modification of the MLRS fleet of vehicles, this will allow a commonality of transmissions between all vehicle subsystems for the M270 MLRS.	shift ne MLRS
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:	FELOPMENT MILESTONES: PLANNED ACCOMPLISHED Development complete -	
	Incorporated into current production,	production.

Exhibit P-3a Individual Modification

					INDI	VIDUAI	- MODI	INDIVIDUAL MODIFICATION	N							Date		Febru	February 1997	
MODIFICATION TITLE (Cont):		Ī	ansm	ssion	Electro	onic C	ontroll	Transmission Electronic Controller (TEC) 1-94-03-0522	C) 1-9	4-03-)522									
FINANCIAL PLAN: (\$ in Millions)	FY 1996	966																		
	and Prior	rior	FY 1997	266	FY 1998	866	FY 1999	666	FY 2000	000	FY 2001	001	FY 2002	200	FY 2003	600	_	TC	TOTAL	AL
	Qty	ક્ક	Qty	8	Qty	es	Qty	s	Qty	\$	Qty	s	Qty	ક	Qty	€	Qty	ક્ક	Qty	€9
RDT&E																				
PROCUREMENT																				
Kit Quantity																				
Installation Kits																				
Installation Kits Nonrecurring																				
Equipment	969	18.9																	969	18.9
Equipment Nonrecurring													•							
Engineering Change Orders																				
Data							•								•					
Training Equipment									•											
Support Equipment					-															
Other																			••••	
Interim Contractor Support																				
Installation of Hardware													•							
FY 1996 & Prior Eqpt 590	290	7.4																	290	7.4
FY 1997 Eqpt Kits																				
FY 1998 Eqpt Kits	-																			,
FY 1999 Eqpt Kits																				
FY 2000 Eqpt kits									-					•						
FY 2001 Eqpt kits																				
FY 2002 Eqpt kits																				
FY 2003 Eqpt kits																				
(FY(TC) Eqpt (xx kits)																				
Total Installation Cost	290	7.4																	290	7.4
Total Procurement Cost		26.3																		26.3
METHOD OF IMPLEMENTATION Contr Field Team Applica	I Contr F	Field Te	am Abi		ADMIN	STRAT	IVE LE	ADMINISTRATIVE LEADTIME:		9	Months		PRODU	CTION	PRODUCTION LEADTIME:	IME:	က	Months		
Contract Dates:	_	FY 1997:	7:				FY 1998:						FY 1999:	. .						
Delivery Date:	_	FY 1997:	7:				FY 1998:	8:					FY 1999:							

	INDIVIDUAL MODIFICATION Date February 1997	197
MODIFICATION TITLE:	Fire Suppression Change 1-94-03-0525	
MODELS OF SYSTEMS AFFECTED:	MULTIPLE LAUNCH ROCKET SYSTEM (MLRS)	
DESCRIPTION / JUSTIFICATION:		
The purpose of this modification is to comply with and Halons. The objective of this modification is to Substances (ODS) by Fiscal Year 2000. The initia used in lieu of the current 2.75 pound Halon bottle Command (TACOM) and began 1Q95. The secor bottle to an alternative substance.	The purpose of this modification is to comply with Department of Defense Directive (DoDD) 6050.9 for the elimination of Chloroflurocarbons (CFC) and Halons. The objective of this modification is to identify and eliminate all Ozone Depleting Chemicals (ODC) and all Ozone Depleting Substances (ODS) by Fiscal Year 2000. The initial phase of this program directs modification of mounting brackets to allow CO2 bottles to be used in lieu of the current 2.75 pound Halon bottles. Swap-out for the hand-held bottles is being done by the U.S. Army Tank and Automotive Command (TACOM) and began 1Q95. The second phase will direct the modification and/or conversion of the 7 pound engine compartment Halon bottle to an alternative substance.	(CFC) De e t Halon
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:	EVELOPMENT MILESTONES: PLANNED ACCOMPLISHED Will be incorporated into production.	

					IQNI	VIDUAL	INDIVIDUAL MODIFICATION	ICATIO	z						Q	Date		February 1997	y 1997	
MODIFICATION TITLE (Cont):		臣	Fire Suppressi	pressi	on Ch	ange .	on Change 1-94-03-0525	3-0525												
FINANCIAL PLAN: (\$ in Millions)												0								
	FY 1996	FY 1996	EV 4007	700	2	1000	1 4 4000	2	N N	5	V 75	ž	20	5	20	50	F		101	-
	2 8 0	<u> </u>	ē ≥	, es	<u>"</u>	S 49	20	+	Ohy YO	+	Oth VIO	- 49	Oto 140	y 65	Otv Suus	+	2 - 6	e.	OF OF ALL	4
RDT&E PROCUREMENT														,		-				
Kit Quantity																				
Installation Kits																				
Installation Kits Nonrecurring Equipment			857	0															257	0.7
Equipment Nonrecurring			}	5															3	3
Engineering Change Orders																-				
Data																				
Training Equipment																				
Support Equipment																				
						·														
interim Contractor Support																				
Installation of Hardware																				
FY 1996 & Prior Eqpt Kits																				
FY 1997 Eqpt 857			158	0.1	430	0.1	569	0.1											857	0.3
FY 1998 Eqpt 430																				
FY 1999 Eqpt 427					*****		-													
FY 2000 Eqpt kits																				
FY 2001 Eqpt kits																				
FY 2002 Eqpt kits							-													
FY 2003 Eqpt kits																				
(FY(TC) Eqpt (xx kits)																				
Total Installation Cost			158	0.1	430	0.1	569	0.1											857	0.3
Total Procurement Cost				9.0		0.1		0.1												1.0
METHOD OF IMPLEMENTATION Depot Field Application	Depot.	Field Ar	plication	3	DMINIS	STRATI	ADMINISTRATIVE LEADTIME	DTIME:	3	4 M	Months	ā, í	PRODUCTION LEADTIME:	TION	EADTI	6	12	Months		
Contract Dates:		FY 1997:		31 Jan 97	/6	T [FY 1998:		5 6	31 Dec 97		Ĺĺ	FY 1999:		5	31 Dec 98				
Delivery Date:		FY 1997:		o dan s	0		FY 1998:		0	Dec ac		L	FY 1999:		31	31 Dec 99				

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	INDIVIDUAL MODIFICATION Date February 1997 Interim IDDS Laurahor 1 04 02 0520	Π
MODIFICATION TITLE:	merini ir Do Launcher 1-84-03-0528	
MODELS OF SYSTEMS AFFECTED:	MULTIPLE LAUNCH ROCKET SYSTEM (MLRS)	
DESCRIPTION / JUSTIFICATION:		
A special interim launcher config (MFOM) and incorporate a new i will require global positioning sys improvement for GPS was not pl	A special interim launcher configuration is required to allow the current M270 platform to fire all of its existing fielded M270 Family of Munitions (MFOM) and incorporate a new requirement to fire the Block IA, Army TACMS Missile System. The Block IA missile will be fielded in 1QFY98 and will require global positioning system (GPS) interface at time of launch. This modification must be accelerated because the pre-planned product improvement for GPS was not planned until the fielding of the Position Navigational Unit [POSNAV Unit (PNU)] with the Improved Fire Control	ס
System (IFCS) in FY00. The mc protection, hoist bumper pads, a Memory (RAM), with the Non Vo	System (IFCS) in FY00. The modification will incorporate the IPDS Line Replaceable Unit (LRU), a GPS antenna, associated cabling with armor protection, hoist bumper pads, a modification to the existing M68 Missile/Launch Pod Assembly (M/LPA) trainer, and sufficient Random Access Memory (RAM), with the Non Volatile Memory Module (NVMM) to support the software loaded into the IEU.	
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:	ELOPMENT MILESTONES:	
	PLANNED ACCOMPLISHED Will be integrated into	
	launchers as an interim	
	program in support of	
	ATACMS Block 1A.	
		1

					INDIN	DUAL N	INDIVIDUAL MODIFICATION	ATION							Date		Febru	February 1997	
MODIFICATION TITLE (Cont):		Inte	rim IPI	JS La	nuche	1-94-	Interim IPDS Launcher 1-94-03-0528	8									3		
FINANCIAL PLAN: (\$ in Millions)	EV 1006	Γ																	
	and Prior		FY 1997	-	FY 1998	-	FY 1999	FY	FY 2000	FY?	2001	FY 2002	200	FY 2003	500	TC	0	TOTAL	AL.
	Qfy	+	Qty	-	Oty		Qty \$	Qty	\$	Qty	\$	Qfy	ક્ક	Qţ	ક્ક	Ö	69	Qty	s
RDT&E PROCUREMENT Kit Quantity Installation Kits Nonrecurring Equipment Equipment Nonrecurring Equipment Nonrecurring Engineering Change Orders Data Training Equipment Support Equipment Other Installation of Hardware FY 1996 & Prior Eqpt Kits FY 1997 Eqpt Kits FY 1999 Eqpt Kits FY 2000 Eqpt Kits FY 2001 Eqpt Kits FY 2002 Eqpt Kits FY 2002 Eqpt Kits FY 2003 Eqpt Kits FY 2003 Eqpt Kits FY 2005 Eqpt Kits FY 2005 Eqpt Kits FY 2005 Eqpt Kits FY 2006 Eqpt Kits FY 2007 Eqpt Kits FY 2007 Eqpt Kits FY 2007 Eqpt Kits FY 2007 Eqpt Kits FY 2007 Eqpt Kits	53	16.2		1.7		0.5			0.6		. 0.6		0.7		0.7			58	16.2
Total Installation Cost Total Procurement Cost		16.2	+	2.2		0.5	+	0.5	0.6	9	9.0		0.7		0.7				22.0
METHOD OF IMPLEMENTATION Contract Field Integration Contract Dates: Delivery Date: FY 1997:	N Contract FY FY	act Field In FY 1997: FY 1997:	itegratio		SINIWO	rrativi FY FY	ADMINISTRATIVE LEADTIME: FY 1998: FY 1998:	IME:	9	Months	ω	PRODUC FY 1999: FY 1999:	PRODUCTION LEADTIME: FY 1999: FY 1999:	LEADI	™E:	12	Months		

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	INDIVIDUAL MODIFICATION Date February 1997	_
MODIFICATION TITLE:	Interim MS Launcher 1-94-03-0529	
MODELS OF SYSTEMS AFFECTED: N	MULTIPLE LAUNCH ROCKET SYSTEM (MLRS)	I
A special interim launcher configu (MFOM) and incorporate a new re	A special interim launcher configuration is required to allow the current M270 platform to fire all of its existing fielded M270 Family of Munitions (MFOM) and incorporate a new requirement to fire the Extended Range (ER) - MLRS beginning in 1QFY99. This modification is required to	7
because the pre-planned product improvement for Erre Control System (IFCS) in FY00. The compon Electronics Unit (MS-EU) and MS-Tranceiving Unit the software loaded into the IEU. The current IEU (NVMM).	because towaining winds at the time of lauren and will thus improve accuracy with increased range. It his modification must be accelerated because the pre-planned product improvement for GPS was not planned for until the fielding of the Meteorological Sensor (MS) with the Improved Fire Control System (IFCS) in FY00. The components for this modification are the two IFCS MS Line Replaceable Units (LRUs), i.e., MET Sensor-Electronics Unit (MS-EU) and MS-Tranceiving Unit (MS-TU), associated kit components and sufficient Random Access Memory (RAM) to support the software loaded into the IEU. The current IEU P/N 13210269 will be modified to IEU P/N 13210255, with the Non Volatile Memory Module (NVMM).	
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:	OPMENT MILESTONES:	_
	PLANNED ACCOMPLISHED Will be integrated into launchers as an interim program in support of ER-MLRS.	

				INDIV	(IDUAL)	INDIVIDUAL MODIFICATION	ATION						٥	Date		Februa	February 1997	
MODIFICATION TITLE (Cont):	=	Interim MS La	MS La	uncher	1-94-0	uncher 1-94-03-0529												
FINANCIAL PLAN: (\$ in Millions)	0007																	
	and Prior	FY 1997	766	FY 1998	98	FY 1999	-	FY 2000	FY	FY 2001	FY 2002	200	FY 2003	03	TC		TOTAL	AL
	Oty \$	Qty	(S)	Oth	Н	Oty \$	Öţ	69	Öţ	\$	QtA	&	Qt	₩	δ	s	Qţ	ક્ક
RDT&E PROCUREMENT																		-
Kit Quantity																	-	
Installation Kits																		
Installation Kits Nonrecurring																		
Equipment	10 9.9												-				10	9.6
Equipment Nonrecurring														-			***	
Engineering Change Orders																		
Data																		
Training Equipment														_				
Support Equipment*																		
Other																		
Interim Contractor Support			0.1		0.1	_	0.1	0.1	_	0.1		0.1		0.1				0.7
																		
Installation of Hardware																		
FY 1996 & Prior Eqpt Kits													-					
FY 1997 Eqpt Kits													•					
FY 1998 Eqpt Kits												_						
FY 1999 Eqpt Kits															,			
FY 2000 Eqpt kits					-													
FY 2001 Eqpt kits					-													
FY 2002 Eqpt kits																		
FY 2003 Eqpt kits																		
(FY(TC) Eqpt (xx kits)							-							+				
Total Installation Cost																		
Total Procurement Cost	9.9		0.1		0.1		0.1	0.1		0.1		0.1		0.1				10.6
* Support equipment for interim launcher pool upgrade.	uncher pool u	pgrade.																
METHOD OF IMPLEMENTATION Contract Field Integration	Contract Fiel	d Integra	ation	ADMINE	STRATIV	ADMINISTRATIVE LEADTIME:	TIME:	9	Months	တ္	PROD(CTION	PRODUCTION LEADTIME:	IME	4	Months		
Contract Dates:	FY 1997:	97:			Ĺ	FY 1998:					FY 1999:							
Delivery Date:	FY 1997:	97:			Ĺ	۲ 1998:					FY 1999:	.6:			١			

	INDIVIDUAL MODIFICATION Date	February 1997
MODIFICATION TITLE:	Hoist Carriage Assembly 1-95-03-0530	
MODELS OF SYSTEMS AFFECTED;	MULTIPLE LAUNCH ROCKET SYSTEM (MLRS)	
DESCRIPTION / JUSTIFICATION: This modification provides a more reliable and st bending of the "spider" beam. The modification if fleet with one hoist carriage assembly common t maintenance manhours and improve overall ope	ESCRIPTION / JUSTIFICATION: This modification provides a more reliable and stronger hoist carriage assembly, which will prevent cracks to the assembly and unnecessary bending of the "spider" beam. The modification will incorporate two Class I ECPs into 376 US Army M270 launchers and will standardize the fleet with one hoist carriage assembly common to the -202/-203 configuration M270 launcher. This modification will reduce Direct Support maintenance manhours and improve overall operational readiness.	nbly and unnecessary nd will standardize the duce Direct Support
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:	PLANNED AC	ACCOMPLISHED Development complete - Incorporated into current production.

					≧	DIVIDU	AL MOI	INDIVIDUAL MODIFICATION	NOI							Date		Febru	February 1997	
MODIFICATION TITLE (Cont):		I	Hoist Carriage	arriag		embly	1-95-	Assembly 1-95-03-0530	0									0		
FINANCIAL PLAN: (\$ in Millions)	L		_																	
	F Pue	FY 1996 and Prior	Ā	FY 1997	FY	FY 1998	FY	FY 1999	FY	2000	FY	FY 2001	FΥ	FY 2002	FY?	FY 2003		2	TOTAL	, AL
	ģ	8	ð	8	ð	€	ð	69	ğ	€9	Ş	8	ğ	8	Qty	8	Qty	\$	Qty	ક્ર
RDT&E PROCUREMENT																				
Kit Quantity																				
Installation Kits														-						
Installation Kits Nonrecurring	376	9	-,																376	er.
Equipment Nonrecurring	5																		;	
Engineering Change Orders																				
Data											_									
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
																	· ·			
Installation of Hardware																				
FY 1996 & Prior Eqpt - 376*	143	0.5	233	6.0	_														376	1.4
FY 1997 Eqpt - Kits																				
FY 1998 Eqpt Kits																				
FY 1999 Eqpt Kits																				
FY 2000 Eqpt kits																				
FY 2001 Eqpt kits																				
FY 2002 Eqpt kits																				
FY 2003 Eqpt kits																				
(FY(TC) Eqpt (xx kits)						_														
Total Installation Cost	143	0.5	233	0.0															376	1.4
Total Procurement Cost		3.8		0.9																4.7
collection A Minister of MOITATINITATION TO COLUMNIA	2	100	and and		A CA	AIICTO	TIVE	ADMINISTRATIVE (CADTIME:	ű	c	Months	e	0000	CITC	- HADTION I EADTINE	TIME	~	Monthe		
METACO OF IMPLEMENTATION	N Depo	FY 1997.	יקנ זקי	2	Ž		FY 1998	198	إ	J	NOM	o	FY 1999:		בר בר בר	1	٢		•	
Delivery Date:		FY 1997:					FY 1998:	.98:					FY 1999:							
celledy care.																				

Installation Schedule: Hoist Carriage Assembly 1-95-03-0530	H :eln	loist C	Sarria	ge As	sem	bly 1-	95-03	3-0530	_								Date			February 1997	y 1997					
	FY 1996		Ŧ	FY 1997			ш.	FY 1998	~		Œ	FY 1999	•		ш	FY 2000	_		ш.	FY 2001						
	& Prior	-1	C/I	ကျ	41	-		2 3	4	-		2 3	44	₩		2 3	41			2 3	41					Total
Inputs																										
FY 1996 & Prior	65	75	5 105		93	38																				376
FY 1997																										
FY 1998																										
FY 1999																										
Outputs																										
FY 1996 & Prior	12	53	3 99	9 125		87																				376
FY 1997																										
FY 1998																										
FY 1999																										
			FY 2000	000			Ŧ	FY 2001			Ŧ	FY 2002			Ŧ	FY 2003			Ŧ	FY 2004			FY 2005	3005		
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Inputs																										
FY 2000																										
FY 2001								٠																		
FY 2002																										
FY 2003																										
Outputs																										
FY 2000																										
FY 2001																										
FY 2002																										
FY 2003																										
Remarks:																										

	INDIVIDUAL MODIFICATION	Date	February 1997
MODIFICATION TITLE:	Obsolescence Mitigation/ECP Reliability Integration 1-95-03-Obsc		
MODELS OF SYSTEMS AFFECTED: MULTIPLE LAI	MULTIPLE LAUNCH ROCKET SYSTEM (MLRS)		
DESCRIPTION / JUSTIFICATION:			

this modification will reestablish the MLRS baseline at the optimal configuration for integration of IFCS and ILMS (MC No. 0519 and 0526) by aiding already obsolete or rapidly approaching obsolescence. The funding on this program will procure modification kits which will incorporate improved Technology obsolescence is dictating the replacement of many launcher components. A study performed showed by the year 2003 over 70% of the electronic components will be obsolete and will not be replaceable. Circuit Cards in the line replaceable units (LRUs) e.g., IEU and FCU, are in the calibration of the system, providing required accuracy levels for new and future munitions, increasing reliability of early configuration of the components necessary to replace parts no longer available. Program Office support costs are included within this modification line. In addition, programmed for Army Technical Architecture Migration Phase I for communications software changes to meet the VCSA ATA Implementation launcher which reduces O&S costs, and eliminating noise and multiple software requirements. Also, funding in FY 00 and FY 01 will be

ACCOMPLISHED			
PLANNED	Will incorporate ongoing obsolescence analysis and determination into production.		
ió.			
EVELOPMENT STATUS / MAJOH DEVELOPMENT MILESTONES:			
VELOPMENI SIAIUS/MAJO			

					IND	VIDUA	MODII	INDIVIDUAL MODIFICATION	Z							Date		Febru	February 1997	
MODIFICATION TITLE (Cont):		0	psoles	Obsolescence	Mitiga	tion/E	CP Re	Mitigation/ECP Reliability Integration 1-95-03-Obsc	/ Integ	gration	1-95-	03-O	၁ՏԸ							
FINANCIAL PLAN: (\$ in Millions)																				
	FY 1996	966																		
	and Prior	Prior	FY 1	1997	FY 1998	966	FY 16	1999	FY 2000	000	FY 2001	-0 6	FY 2002	202	FY 2003	£003	l' 1	TC	10	TOTAL
RDT&E	3	•	3	•	3	9	<u> </u>	+	<u>}</u>	9	3	9	Ŝ	9	3	9	3	P	Š	A
PROCUREMENT																				
Kit Quantity								-												
Installation Kits																				
Installation Kits Nonrecurring																				
Equipment		2.2		1.4	-	1.0		1.0		0.8		-		-		1.0				9.6
Equipment Nonrecurring									-											i
Engineering Change Orders																				
Data																-				
Training Equipment																				
Support Equipment*										0.2		0.2	,							0.4
Other																				5
Interim Contractor Support																				
motolistics of the section																				
Installation of Hardware													-							
FY 1996 & Prior Eqpt Kits					-															
FY 1997 Eqpt Kits							-			_										
FY 1998 Eqpt Kits																				
FY 1999 Eqpt Kits																				
FY 2000 Eqpt kits																				
FY 2001 Eqpt kits																				
FY 2002 Eqpt kits					-				•											
FY 2003 Eqpt kits																				
(FY(TC) Eqpt (xx kits)																				
Total Installation Cost									T											
Total Procurement Cost		2.2		4.1		1.0		1.0	-	1.0		1.3				0.				10.0
* Support equipment funds show breakout of Phase I ATA requirement	breakout	of Pha	Se I AT	A requir	ement.															
METHOD OF IMPLEMENTATION	7				MINIK	STRATI	ADMINISTRATIVE LEADTIME:	DTIME		2	Months	<u>.</u>	PRODUCTION LEADTIME:	CTION	LEADT	IME		Months		
Contract Dates:		FY 1997:	۲.				FY 1998:					_	FY 1999:							
Delivery Date:	ш.	FY 1997:	۲.			ш.	FY 1998:						FY 1999:							

t P-4	Shee
Exhibi	Justification
	Item
	Budget

						DATE		
	BUDG	BUDGET ITEM JUSTIFICATION SHEET	FICATION SHEE	ΞŢ		February 1997		
APPROPRIATION / BUDGET ACTIVITY	rivity			P-1 ITEM NOMENCLATURE	ш			
M	MISSILE PROCUREMENT /Spares and Repair Parts	pares and Repair Parts				SPARES AND REPAIR PARTS (CA0250)	IR PARTS (CA0250)	
	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
QUANTITY	0	0	0	0	0	0	0	0
COST (in millions)	11.5	12.1	11.3	21.4	22.0	31.6	38.8	43.6
				,				

Description: Provides for procurement of spares to support initial fielding of new or modified end items.

Justification: The funds in this account procure depot level reparable (DLRs) secondary items from the Supply Management, Army business area of the Defense Business Operations Fund. To provide initial support, funds are normally required in the same year that end items are fielded. Initial spares breakout:

FY 1999	4.2	7.1		3.6		5.8	9.				21.3
FY 1998		1.0	1.0	2.7		5.7	1.0				11.4
FY 1997			1.0	7.0		2.3	1.8				12.1
FY 1996		5.1		3.4	1.0		2.0				11.5
				spi	Mods	>	sp				Totals
System	Javelin	MLRS	ATACMS	Patriot Mods	Avenger N	ITAS/TOV	MLRS Mo				

						DATE		
	BUL	BUDGET ITEM JUSTIFICATION SHEET	TIFICATION SH	EET			February 1997	
APPROPRIATION / BUDGET ACTIVITY	IVITY			P-1 ITEM NOMENCLATURE	ш			
MISSILE PROCUREMENT /Support Equipment and Facilities	REMENT /Supi	port Equipment	and Facilities		AIR	DEFENSE TA	AIR DEFENSE TARGETS (C93000)	(000
	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
QUANTITY	0	0	0	0	0	0	0	0
COST (in millions)	9.9	6.2	1.0	1.0	1.0	1.0	1.0	1.0
OUANTITY SOST (in millions)	6.6	6.2	1.0	1.0	1.0		, o	0.1

DESCRIPTION:

worldwide active Army and Reserve Component air defense training, including quality assurance, lot acceptance, production qualification, and first The Air Defense Targets Program provides fixed wing, rotary wing, ballistic and towed targets; target control systems; and ancillary equipment for article tests. During the budget years, targets to be procured include many different varieties, ranging from 1/9-scale training targets to realistic, full scale threats, as well as the Ballistic Aerial Target System (BATS). Towed targets to be procured include the Infrared (IR) Training Target. Target ancillary hardware includes items such as the target group set, scoring hardware and installation kits, scoring ground support equipment, IR augmenters, radar altimeters, and low altitude kit.

JUSTIFICATION:

training targets, target control systems and ancillary equipment. Training requirements are generated by DA major field commands and provided to Fighting Vehicle (BSFV) and LINEBACKER. Major items of target hardware which support or will support soldier training include MQM-107, Radio TMO at an annual DA-sponsored targets conference. These field requirements have been scrubbed against HQDA fielding and force restructuring In support of soldier training, targets are provided to support fielded AVENGER, MANPADS, AIR-TO-AIR STINGER, PATRIOT, Bradley STINGER Controlled Miniature Aerial Target (RCMAT), Ballistic Aerial Target System (BATS), 1/5 Scale Remotely Piloted Vehicle Targets (RPVTS), towed plans, and are consistent with approved training doctrine.

Army programs. Major items of target hardware which support or will support these tests include ancillary items, MQM-107, 1/5 Scale RPVTS, target control systems, drone control kits and BATS. To provide for sustained operations of target systems, it is necessary to establish operational pools In support of weapon systems testing, targets are provided on a reimbursable basis to STINGER, PATRIOT, U.S. Navy, U.S. Air Force, and other which vary in size depending on quantity and frequency of flights which must be supported.

Missiles Cost Analysis	٩	A. APPN / BUDGET ACTIVITY TITLE/NO MISSILE PROCUREMENT / 5 / Sur	T ACTIVIT CUREME	Y TITLE/NO NT / 5 / Suppor	. APPN / BUDGET ACTIVITY TITLENO MISSILE PROCUREMENT / 5 / Support Equipment and	B. WEAPON	WEAPON AIB DEFENSE TABGETS (C93000)	RGETS (C9	3000)	C. MANUFACTURER NAME	JRER NAME	D. DATE	DATE Eobrigan 1007
				Facilities				20101-01	(0000)			Leni	Jaly 1997
Missiles	<u></u>		FY96			FY97			FY98			FY99	
Cost Elements	СD	TotalCost	Qty	UnitCost	TotalCost	Oth	UnitCost	TotalCost	Oty	UnitCost	TotalCost	Qty	UnitCost
		000\$	Each	000\$	000\$	Each	\$000	\$000	Each	\$000	\$000	Each	\$000
MGM-107 -Airframe/Engine -Technical Publications -Engineering Costs -Other Costs		1853 780 2633			1912 727 2639			968 333 998			664 332 996		
RCMAT -Hardware -Operating Costs -Other Costs SUBTOTAL		52 74			50 19								
1/5 SCALE -Hardware -Operating Costs -Other Costs SUBTOTAL		176 60 99 335	112	a	618 120 280 1018	150	4						
BATS -Airframes -Rocket Motors -Other Hardware -Operating Costs -Other Costs		874 109 414 1397	157	VAR	425 55 183 663	7000	VAR						
TOWED TARGETS -Operating Costs -Other Costs SUBTOTAL		77 32 109			54 75					-			
ANCILLARY/AUGMENTATION -Hardware - Piece Parts CIK-170 Scoring Kits - GSQ-102 Scoring Ground Stations - RCMAT CIK-206 Scoring Kits - Universal Fins w/CDOPS - CIK-228 Scoring Kits - RCMAT CIK-206 Scoring Kits - RCMAT CIK-206 Scoring Kits - Operating Costs - Other Costs SUBTOTAL		909 532 606 2047	500	a	881 375 475	470	N						
GRAND TOTAL		6595	_		6195			968			966		

BUDGET PRO	BUDGET PROCUREMENT HISTORY AND	PLANNI	ORY AND PLANNING EXHIBIT (P-5A)					_{рате} Febr	re February 1997	266
B. APPROPRIATION / BUDGET ACTIVITY MISSILE PROCI INFIMENT / 5 / SUPPORT	VT / 5 / Support Faminament and Facilities	ant and F	Pacilities		O. P.1 ITEMIN AIR F	C. P.1 ITEM NOMENCLATURE AIR DEFENSE	AIB DEFENSE TABGETS (C93000)	ETS (C930	(00
LINE ITEM/FISCAL YEAR		CONTRACT METHOD AND TYPE	CONTRACTED BY	AWARD DATE	DATE OF FIRST DELIVERY	QTY	UNIT COST \$000	SPECS AVAIL NOW	SPEC IF REV REQ'D	IF YES W/A
1/5 SCALE FY96 FY97	Continental RPV, Barstow, CA Continental RPV, Barstow, CA	<u>ዋ</u> ዋ	MICOM	Oct-95 Oct-96	Jun-96 Feb-97	112	4 4			
BATS FY96 - Airframes - Other Hardware	Lockley Mfg., New Castle, PA	£	MICOM	Jan-96	Jan-97	157	VAR	Yes		
FY97 - Rocket Motors	Lockley Mfg., New Castle, PA.	FF	MICOM	Oct-96	Jan-97	7000	VAR	Yes		
ANCILLARY/AUGMENTATION FY96 - RCMAT CIK-206 Scoring Kits	Cartwright Eng., Fullerton, CA	FP	MICOM	Oct-95	May-96	200	8	Yes		
FY97 - RCMAT CIK-206 Scoring Kits	Cartwright Eng., Fullerton, CA	Ŧ	MICOM	Oct-96	May-97	470	N	Yes	***************************************	
										
REMARKS:									1	

FY 96 / 97 BUDGET PRODUCTION SCHEDUL	ODI	ICTION	SCHE	ш			P-1 ITEM NOMENCLATURE AIR DEFENSE TARGETS (C93000)	M	A	ATURI VIR [)EF	ENS	E T	AH	GE	S	C93	000	_		DATE	<u> </u>	Fe	əbri	February 1997	7	997		
	-			-	ACCEP.	BAL				Ĭ	Fiscal Year 95	Year	92				H				۴	sca	Fiscal Year 9	ar 96					_
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COST ELEMENTS	r CC	Ā	шα>	Each 1	1 OCT	AS OF 1 OCT	00+	NO N	¬ ∢ Z	ппо	≱ ∢ œ	4 G G	∑ ∢ ≻	¬ ⊃ Z	ر د د د	< ⊃ ซ	ωшс	00+	Z O >	7 K Z	L III 60	Σ < α	< C C	≥ < ≻	7 D Z	רכי	< ⊃ ত	ωшσ	⊢шα
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- RCMAT CIK-206 Scoring Kits	က	96	∀	200	\forall		+	4	4	4				T	\forall	7	\dashv	\dashv	\dashv	4	\dashv	4		8	20	20	55	58	330
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EV 07 / 08 BIIDGET BROUTCHON SCHEDIII	5	MOITOR	HU	- E			P-1	P-1 ITEM NOMENCLATURE AIR DEFENSE TARGETS (C93000)	MEN	₽₽	띰	FEN	SE	ΤĀ	3GE	TS	<u>60</u>	3000	<u> </u>		<u> </u>	DATE	Щ	ebr	nar	>	February 1997		
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COST ELEMENTS	шα	È	ш с >	Each	TO 1	AS OF 1 OCT	00-	z o >	υшО	¬ < Z	7 11 18	¥ A R A G R	≥ < ≻	7 D Z	¬ ⊃ -1	∢ ⊃ დ	ര മ പ	00+	z o >	ОШО	¬ < z	тшю	A G G	Σ<≻	7 D Z	רכי	د ⊃ ت	αшα	⊢ w œ
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Exhibit P-40	Budget Item Justification Sheet

						DATE		
	BOL	BUDGET ITEM JUSTIFICATION SHEET	TIFICATION SH	EET			February 1997	
APPROPRIATION / BUDGET ACTIVITY	TIVITY			P-1 ITEM NOMENCLATURE	ш			
MISS	MISSILE PROCUREMENT /Support Equipment and Facilities	ort Equipment and Facilities				ITEMS LESS THAN \$2.0M (MISSILES) (CL2000)	M (MISSILES) (CL2000)	
	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
QUANTITY	0	0	0	0	0	0	0	0
COST (in millions)	. 1.0	1.0	1.0	6.0	1.0	1.0	1.1	1.1
			4 - 1 1 4	At the second of the second	A section of	the state of the s		

DESCRIPTION: Provides for procurement of various tools and shop sets to support the Army's missile systems worldwide.

JUSTIFICATION: Funding is required for procurement of tool and shop sets to support the following systems:

MLRS TOW AVENGER

Missiles Cost Analysis	-	A. APPN / BUDGET ACTIVITY TITLE/NO MISSILE PROCUREMENT / 5 / Supp	T ACTIVITY SUREMEN	. APPN / BUDGET ACTIVITY TITLENO MISSILE PROCUREMENT / 5 / Support Equipment and		B. WEAPON ITEMS LESS	N SS THAN \$2.0	B. WEAPON ITEMS LESS THAN \$2.0M (MISSILES) (CL2000)	CL2000)	C. MANUFACTURER NAME 300) ANNISTON DEPOT		D. DATE Febru	TE February 1997
	1			Facilities						WAREHOUSE 30	OUSE 30		
Missiles	<u> </u>		FY 96			FY 97			FY 98			FY 99	
Cost Elements	CD	TotalCost	Qty	UnitCost	TotalCost	Oty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
		000\$	Each	000\$	\$000	Each	000\$	000\$	Each	000\$	000\$	Each	\$000
ALL ARE MISSILE TOOL KITS. NO MODS													
1. MLRS COMPONENTS ASSEMBLY	∢	402			487			467			469		
2. TOW COMPONENTS ASSEMBLY	∢	65 35			91 8			91			41		
3. AVENGER COMPONENTS ASSEMBLY	⋖	165 89			142			140			132		
TOTAL		971			991			954			941		
NOTE: EACH SYSTEM HAS MORE THAN ONE KIT WITH VARYING QUANTITIES AND UNIT COSTS FOR EACH KIT.													
											•		

						DATE		
	BND	GET ITEM JUS	BUDGET ITEM JUSTIFICATION SHEET	EET			February 1997	
APPROPRIATION / BUDGET ACTIVITY	YTIVI			P-1 ITEM NOMENCLATURE				
MISSIM	MISSILE PROCUREMENT /Support Equipment and Facilities	rt Equipment and Facilities				MISSILE DEMILITARIZATION (HI.2000)	(HI2000)	
	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
QUANTITY	0	0	0	0	0	0	0	0
COST (in millions)	1.6	1.5	1.5	1.5	1.5	1.5	1.5	1.5

Description: The Missile Demilitarization Program provides for the demilitarization of U.S. Army missiles and missile components that are obsolete or excess to the Army requirements following the guidelines of the Resource Conservation and Recovery Act.

Justification: The backlog of missiles requiring demilitarization is a growing concern of the Department of the Army. Changes during the past few on the CONUS wholesale storage base. There are some 52,000 missiles and 100,000 missile components utilizing 99 premium storage igloos military forces, retrograde of weapon system assets from Europe and major changes in war reserve planning have placed a tremendous strain that require demilitarization. FY98 will continue the process of demilitarization priority one (obsolete, excess, environmental concern and using years in the worldwide political environment have resulted in drastic changes in military strategies. Reduced requirements of prepositioned valuable storage space) missiles, i.e., Shillelagh. Exhibit P-40

Missiles Cost Analysis		A. APPN / BUDGET ACTIVITY TITLE/NO MISSILE PROCUREMENT / 5 / Support E	T ACTIVITY CUREMEN	TITLE/NO	equipment and	B. WEAPON MISSIL	V ILE DEMILITAF	VEAPON MISSILE DEMILITARIZATION (HL2000)	(000)	C. MANUFACTURER NAME N/A		D. DATE Febr	TE February 1997
	٦		٦	Facilities					,				100
	₽		FY 96			FY 97			FY 98			FY 99	
nts	CD	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Q Ç	UnitCost
		\$000	Each	000\$	000\$	Each	000\$	000\$	Each	\$000	\$000	Each	\$000
SHILLELAGH													
DEMILITARIZATION		1116			1149			1183			1219		
отнев		255			252			249			194		
REDEYE								-					
DEMILITARIZATION		125											
ОТНЕЯ		20											
SS-11(M22)													
DEMILITARIZATION		102			107								
ОТНЕЯ		25			24								
NIKE HERCULES								09			69		
DEMILITARIZATION								15			14		
ОТНЕЯ													
TOTAL		1643			1532			1507	10.00		1496		
MANA CAMPAGE OF													

						DATE		
	BUDG	BUDGET ITEM JUSTIF	<i>FIFICATION SHEET</i>	L:		February 1997		
APPROPRIATION / BUDGET ACTIVITY	YTIVI			P-1 ITEM NOMENCLATURE	ш			
HISSIN	MISSILE PROCUREMENT /Support Equipment and Facilities	ort Equipment and Facilities				PRODUCTION BASE	PRODUCTION BASE SUPPORT (CA0100)	
	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
QUANTITY	0	0	0	0	0	0	0	0
COST (in millions)	2.8	3.5	3.4	3.3	3.6	3.6	3.9	3.9

production and production testing of missile systems or missile components. Funds are used to establish, modernize, expand or replace Army-owned DESCRIPTION: This program provides for Production Support and Equipment Replacement (PSR) of Government owned equipment used in industrial facilities.

or instrumentation and modernization of test facilities at the Redstone Arsenal Technical Test Center and White Sands Missile Range. This project is JUSTIFICATION: The FY98/FY99 request includes the above routine maintenance on real property, replacement/rehabilitation of existing equipment also essential in sustaining the Army's missile warhead production capability, eliminating safety hazards, etc., at the lowa Army AMMO Plant.

A detailed summary project listing is attached.

Production Support and Facilities Projects		DAIE	February 1997	
APPROPRIATION / BUDGET ACTIVITY	P-1 ITEM NOMENCLATURE			
MISSILE PROCUREMENT /Support Equipment and Facilities	PRO	PRODUCTION BASE SUPPORT (CA0100)	T (CA0100)	
PROJECT NO. TYPE NAME/LOCATION	FY 1996	FY 1997	FY 1998	FY 1999
39X2169 PSR, Redstone Arsenal Rocket Engine (RARE) Facility Thiokol Corp, producers of Solid Rocket Motors, closed its Redstone facility in September 1996. Due to the Thiokol's mission, an Environmental Baseline Study (EBS) has been performed to assess and establish liability for contamination. Funds will be used to complete environmental studies, demolition/asbestos abatement or other documentation related to closure of RARE that is required by environmental laws or that which is in the best interest of the government.	1.316	1.947	1.814	1.775
93X5069 PSR, White Sands Missile Range Funds replacement and initial purchase of equipment and instrumentation used in production testing of missile systems and components. Supported systems include ATACMS, MLRS, PATRIOT, SADARM. This project will procure computer system upgrades, replace test equipment and provide communications security equipment.	0.800	1.095	1.000	1.000
93X5071 PSR, Redstone Arsenal Technical Test Center (RTTC) This equipment is required for modernization of test facilities and equipment in the Dynamic, Static, and Electronic Component Test Branches of the Redstone Technical Test Center.	0.200	0.224	0.250	0.250

Exhibit P-15 Production Support and Facilities Projects

Production Support and Facilities Projects	nd Facilities Projects	≧	ii.	February 1997	
APPROPRIATION / BUDGET ACTIVITY		P-1 ITEM NOMENCLATURE			
MISSILE PROCUREMENT /Support Equipment and Facilities	acilities	PROC	PRODUCTION BASE SUPPORT (CA0100)	(CA0100)	
PROJECT NO. TYPE NAME/LOCATION	NC	FY 1996	FY 1997	FY 1998	FY 1999
3902335 MISSILE AUTOMATIC TEST EQUIPMENT (MATE) Annual project to maintain and upgrade Missile Automatic Test Equipment used in depot level maintenance of various missile systems.	AENT (MATE) Test Equipment S.	0.383			
This project is essential to sustain the Army's missile warhead production capability, eliminate safety hazards by replacing worn equipment and rehabilitation of facilities. Further, this project will improve the Heating Ventilation and Air Conditioning (HVAC) in the TOW production area, provide fire protection in Bldg I-40 assembly area and upgrade process controllers in various areas.	ead production pment and rehabilitation fentilation and Air fire protection in n various areas.	0.149	0.200	0.300	0.300